# IOWA DEPARTMENT OF NATURAL RESOURCES

# CONSTRUCTION DRAWINGS OFFICE & STORAGE BUILDING GREEN VALLEY STATE PARK UNION COUNTY, IOWA



DIRECTORY

CITY, STATE, ZIP

CONTACT

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KCL ENGINEERING

CHAD BASS

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IOWA DEPARTMENT OF NATURAL RESOURCES COMPANY

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OWNER

COMPANY

ADDRESS

CONTACT

FAX

EMAIL

TELEPHONE

ARCHITECT

COMPANY

**ADDRESS** 

CITY, STATE, ZIP

TELEPHONE

**ADDRESS** 

CONTACT

TELEPHONE

CITY, STATE, ZIP

CIVIL ENGINEER

FAX

CITY, STATE, ZIP

PROJECT # 15-04-88-01

PLANS PREPARED BY I AND AND WATERS RUREALL

PROJECT DESCRIPTION

GREEN VALLEY STATE PARK IS LOCATED JUST NORTH OF CRESTON, IOWA. THE PARK WILL RECEIVE A NEW OFFICE/SHOP AND STORAGE BUILDING AS SHOWN IN THE DOCUMENTS. THE OFFICE/SHOP

WILL HAVE A GARAGE/STORAGE AREA WHICH WILL HAVE THREE IDENTICAL HEATED BAYS. THE OFFICE WILL HAVE ONE LARGE OPEN OFFICE SPACE, ONE STORAGE AREA, ONE RESTROOM, MECHANICAL

ROOM AND A TWELVE PERSON CONFERENCE/BREAKROOM. THERE WILL BE A PAVED DRIVE INTO THE GARAGE BAYS AND A STORAGE YARD TO THE REAR OF THE BUILDING. THE PUBLIC ENTRY WILL

HAVE A LARGE OVERHANG WITH A DECORATIC HEAVY TIMBER TRUSS. THIS SITE WILL ALSO RECEIVE A 40' X 80' POST-FRAME STORAGE BUILDING AND WILL HAVE SOME OF ITS EXISTING FACILITIES

		CONSERVATION AND RE		
CTORY		PROJECT DATA	- OFFICE BUILDING	PROJECT DATA - STORAGE BUILDING
DISTRICT II	NSPECTOR	OCCUPANT LOAD:	MEANS OF EGRESS:	OCCUPANT LOAD:
ES COMPANY	IOWA DEPARTMENT OF NATURAL RESOURCES	GROUP B - BUSINESS	AND DECUMED A SALES OF SALES AND TABLE 1004.1	ODALID C. CTODAGE / ACCESSODY
ADDRESS		BUSINESS AREAS - 830 GROSS (IBC TABLE 1004.1.1)	MIN. REQUIRED # EXITS = 2 EXITS PER LEVEL (IBC TABLE 1021.1) MAX TRAVEL DISTANCE = 200' (IBC 1016.1)	GROUP S - STORAGE / ACCESSORY STORAGE AREAS - 3,200 GROSS (IBC TABLE 1004.1.1)
CITY,STATE,ZIP	BRAYTON, IA	personal contents of the conte	DEAD-END CORRIDOR WIDTH = 20' MAX. (IBC 1018.4)	
CONTACT	MARK JOHNSON	GROUP S - STORAGE / ACCESSORY STORAGE AREAS - 25 GROSS (IBC TABLE 1004.1.1)	MIN. CORRIDOR WIDTH = 36" CLEAR MIN. CLEAR OPENINGS FOR EXIT DOORS = 34" (ACTUAL 32")	STORAGE 3,200 SF / 300 = 10.67 = 11 OCCUPANTS
TELEPHONE	515.250.3713	MECHANICAL AREAS - 95 GROSS (IBC TABLE 1004.1.1)	Section in the second of the s	TOTAL OCCUPANT LOAD = 11 OCCUPANTS
FAX	-	GARAGE AREAS - 2,443 GROSS	FIRE EXTINGUISHERS:  THE NUMBER AND LOCATION OF FIRE EXTINGUISHERS TO BE DETERMINED BY THE FIRE	
EMAIL	MARK.JOHNSON@DNR.JOWA.GOV	BUSINESS 830 SF / 100 = 8.3 = 9 OCCUPANTS	MARSHALL PRIOR TO CERTIFICATE OF OCCUPANCY.	FIRE EXTINGUISHERS:  THE NUMBER AND LOCATION OF FIRE EXTINGUISHERS TO BE DETERMINED BY THE FIRE
	L ENGINEER	STORAGE 25 SF / 300 = .83 = 1 OCCUPANT ACCESSORY / MECH. 95 SF / 300 = .32 = 1 OCCUPANT CARACT / STORAGE 2.447 SF / 700 = .814 = 0.000CUPANTS	BUILDING:	MARSHALL PRIOR TO CERTIFICATE OF OCCUPANCY.
ES COMPANY	KCL ENGINEERING	GARAGE / STORAGE 2,443 SF / 300 = 8.14 = 9 OCCUPANTS	ADDRESS: GREEN VALLEY STATE PARK 1480 130TH STREET	BUILDING:
ADDRESS	218 1/2 5TH STREET	TOTAL OCCUPANT LOAD = 20 OCCUPANTS	CRESTON, IA 50801	USE - STORAGE
CITY,STATE,ZIP	WEST DES MOINES, IA 50265	REQUIRED FIXTURES:	UNION COUNTY USE - OFFICE / STORAGE	BUILDING CONSTRUCTION — TYPE V—B (WITHOUT SPRINKLER SYSTEM) NUMBER OF STORIES — 1 STORY
CONTACT	JAMES DEEDS	1 TOTAL WATER CLOSET (1 UNISEX)	BUILDING CONSTRUCTION - TYPE V-B (WITHOUT SPRINKLER SYSTEM)	BUILDING HEIGHT - 22'-0"
TELEPHONE	515–371–9970	A CONTRACTOR AND	NUMBER OF STORIES — 1 STORY BUILDING HEIGHT — 22'-0"	BUILDING AREA — 3,200 GSF BUILDING OCCUPANCY — GROUP S—1, STORAGE
FAX	1 - ·	WATER CLOSETS - 1 PER 25 FOR FIRST 50 = 1 REQUIRED / 1 PROVIDED LAVATORIES - 1 PER 40 FOR FIRST 80 = 1 REQUIRED / 2 PROVIDED	BUILDING AREA - 3,755 GSF	The state of the
EMAIL	JDEEDS@KCLENGINEERING.COM	Z.M. ISING TENT IS TO THE TOTAL TO THE TOTAL TOT	BUILDING OCCUPANCY - GROUP B, BUSINESS & GROUP S-1, STORAGE	
	AL ENGINEER			

SHEET TITLE SHEET. NO. ARCHITECTURAL COVER SHEET I hereby certify that this architectural document was prepared by WALL TYPES, NOTES & SYMBOLS me or under my direct personal supervision and that I am a duly Registered Professional Architect under the laws of the State of Iowa. A-003 PROJECT LOCATION RYAN E RICHEY C1 SURVEY CONTROL RYAN E. RICHEY DEMOLITION PLAN 06461 My license renewal date is June 30, 2017. DIMENSION PLAN Pages or sheets covered by this seal: GRADING PLAN A-001 - A-600GRADING BORROW LOCATION C6 UTILITY PLAN JOINTING PLAN I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly LICENSED Professional ENGINEER under the laws of the State of Iowa. C8 STANDARD DETAILS ARCHITECTURAL 7/29/5 A-010 ARCHITECTURAL SITE PLAN BRETT JOHNSON BRETT JOHNSON A-020 LIFE SAFETY PLAN 13653 A-100 REFERENCE FLOOR PLAN My license renewal date is DECEMBER 31, 2015. DIMENSION FLOOR PLAN Pages or sheets covered by this seal: REFLECTED CEILING C1 - C8A-120 EXTERIOR ELEVATIONS EXTERIOR ELEVATIONS BUILDING SECTIONS AND ROOF DETAILS I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly LICENSED Professional ENGINEER under the laws of the State of Iowa. A-131 BUILDING SECTIONS ENLARGED FLOOR PLAN 7/29/15 INTERIOR ELEVATIONS & MILLWORK SECTIONS CHAD D BASS CHAD D. BASS A-202 LIFE SAFETY PLAN 21397 My license renewal date is DECEMBER 31, 2015. REFERENCE FLOOR PLAN BUILDING ELEVATIONS Pages or sheets covered by this seal: A - 230BUILDING SECTIONS M0.0 - P2.0A-600 FINISH, DOOR & WINDOW SCHEDULES MECHANICAL I hereby certify that this engineering document was prepared by MECHANICAL SYMBOLS AND NOTES me or under my direct personal supervision and that I am a duly LICENSED Professional ENGINEER under the laws of the State of Iowa. M1.0 OFFICE FLOOR PLAN - MECHANICAL M2.0 MECHANICAL DETAILS 7/29/15 MECHANICAL SCHEDULES JAMES R. DEEDS IV AMES R. DEEDS IV 17588 My license renewal date is DECEMBER 31, 2016. OFFICE UNDERFLOOR PLAN - PLUMBING Pages or sheets covered by this seal: OFFICE FLOOR PLAN - PLUMBING E0.0 - E5.0STORAGE FLOOR PLAN - PLUMBING P2.0 PLUMBING SCHEDULES AND DETAILS ELECTRICAL ELECTRICAL SYMBOLS, NOTES & SITE PLAN OFFICE FLOOR PLAN - LIGHTING OFFICE FLOOR PLAN - POWER STORAGE FLOOR PLAN - ELECTRICAL ELECTRICAL DETAILS E5.0 ELECTRICAL SCHEDULES

SHEET INDEX

BID ITEMS

ITEM DESCRIPTION

DEMOLITION

3 FULL DEPTH SAW CUT

6 8" FILTER SOCK

10 2" HDPE WATER MAIN

12 2X2X1 HDPE TEE

14 4" PVC SDR 23.5

15 1" LP SERVICE LINE

21 | ELECTRICAL SERVICE

24 OFFICE BUILDING 25 STORAGE BUILDING

16 CLASS "A" CRUSHED STONE

17 GRANULAR BASE FOR PAVEMENT

19 6" REINFORCED PCC PAVEMENT

20 PRECAST CONCRETE WHEEL STOPS

22 PAINT STRIPING & HANDICAP SIGNAGE

26 SIDE AND ROOF EXISTING BUILDING

27 NPDES GENERAL PERMIT #2

29 CONSTRUCTION STAKING

MOBILIZATION

23 BLACK PVC COATED CHAIN LINK FENCING

28 WATER LEAK REPAIR AT WATER METER PIT

18 5" REINFORCED PCC SIDEWALK PAVEMENT

11 1" HDPE WATER SERVICE

TREE CLEARING AND GRUBBING

5 SEEDING, FERTILIZING AND MULCHING

8 SANITARY SEWER SERVICE CLEANOUTS

9 3X3X2 TAPPING TEE WITH VALVE

7 4" SANITARY SEWER SERVICE (PVC SDR 23.5)

13 WOODFORD MODEL S-3 SANITARY YARD HYDRANTS

ARTMENT OF RESOURCES

IOWA DEP/ NATURAL I

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**ESTIMATED** 

QUANTITY

1 LS

1 LS

202 LF

1 LS

1 LS

59 LF

1 EA

1 EA

246 LF

14 LF

1 EA

1 EA

34 LF

120 LF

543 TON

31 TON

75 SY

50 SY

4 EA

1 LS

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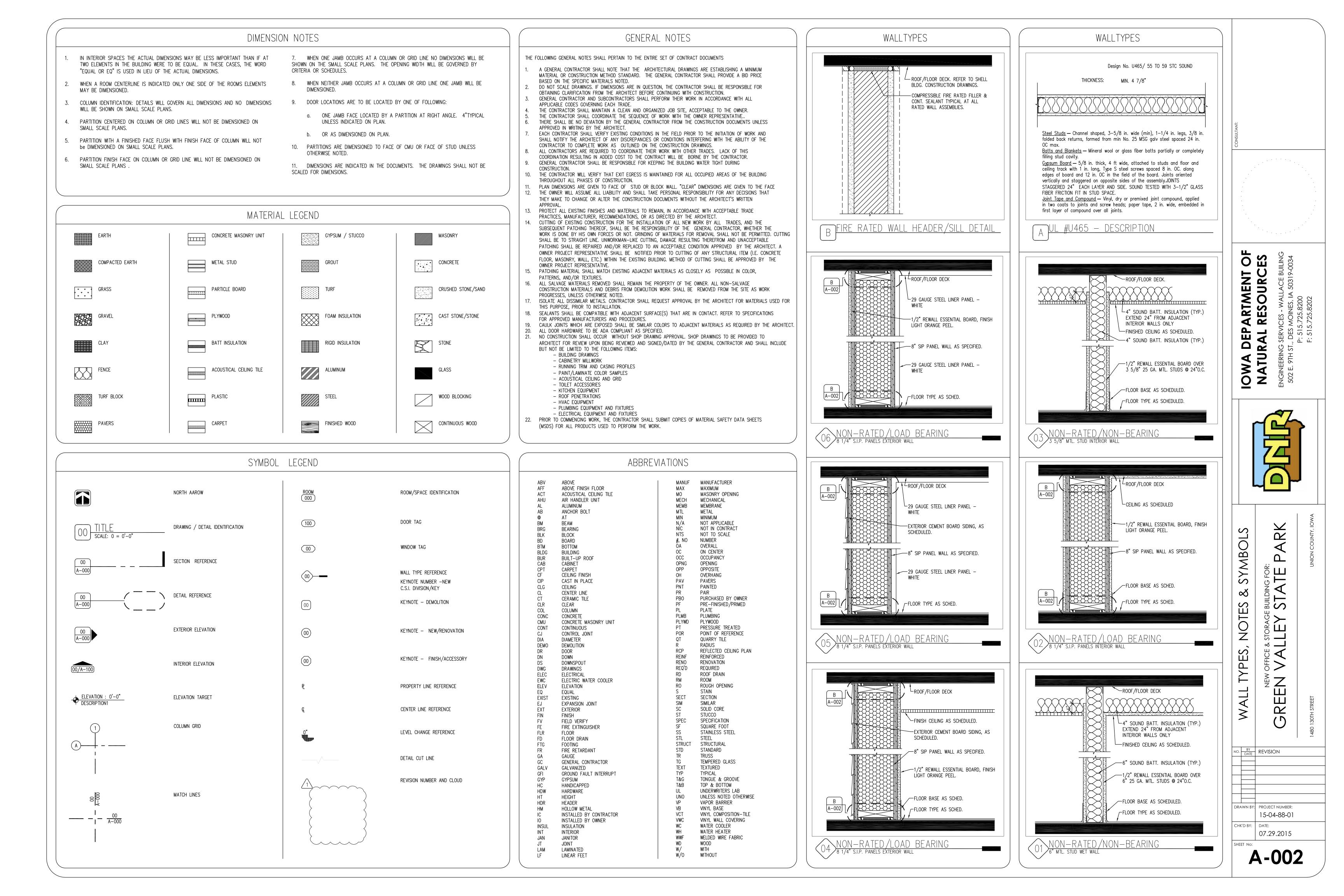
NO. DATE REVISION DRAWN BY: PROJECT NUMBER: 15-04-88-01 CHK'D BY: DATE: 07.29.2015

AUTHORIZATION TO BID

**ENGINEERING BUREAU CHIEF** 

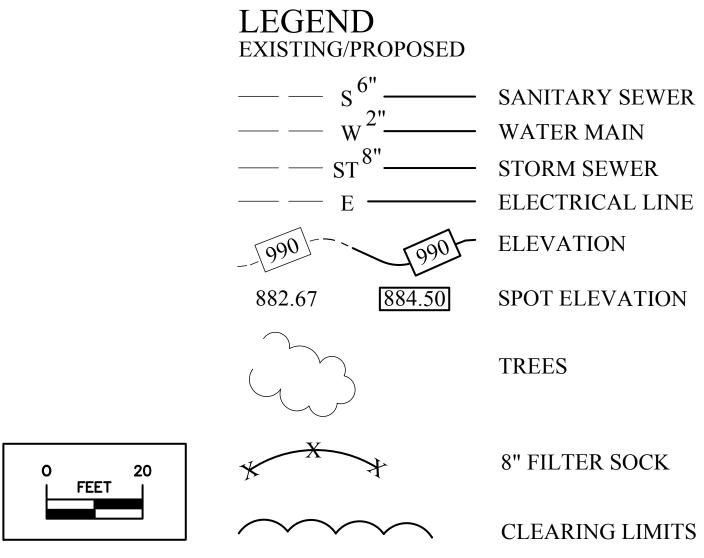
8/5/15 DATE

AUTHORIZED - PARKS | WILDLIFE | FISHERIES | LAW ENFORCEMENT



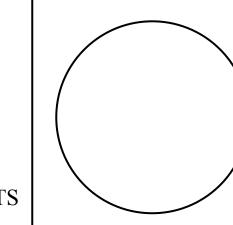






# SURVEY CONTROL POINTS

SURVEY CO	NTROL POINT #401	SURVEY CC	NTROL POINT #403	SURVEY CC	SURVEY CONTROL POINT #404		
N:	406919.9730	N:	406897.4550	N:	406936.3890		
E:	1397934.5560	E:	1397891.5310	E:	1397991.2630		
ELEV:	1292.103	ELEV:	1290.842	ELEV:	1290.727		
PK NAIL IN A	SPHALT	12-INCH NA	AL .	PK NAIL IN ASPHALT			
SURVEY COI	NTROL POINT #405	SURVEY CC	NTROL POINT #406	SURVEY CC	SURVEY CONTROL POINT #407		
N:	406975.7910	N:	407059.1780	N:	407119.8320		
E:	1397896.9840	E:	1397811.8200	E:	1397967.1550		
ELEV:	1000 000	EL E\ /.	100/001	ΓI Γ\ / <b>.</b>	1000 7/0		
LLLV.	1293.299	ELEV:	1296.391	ELEV:	1289.760		



DEPARTMENT O
RAL RESOURCES
G SERVICES - WALLACE BUILING

OFFICE & STORAGE BUILDINGS FOR:
EEN VALLEY STATE PARK

NO. BY REVISION

DATE REVISION

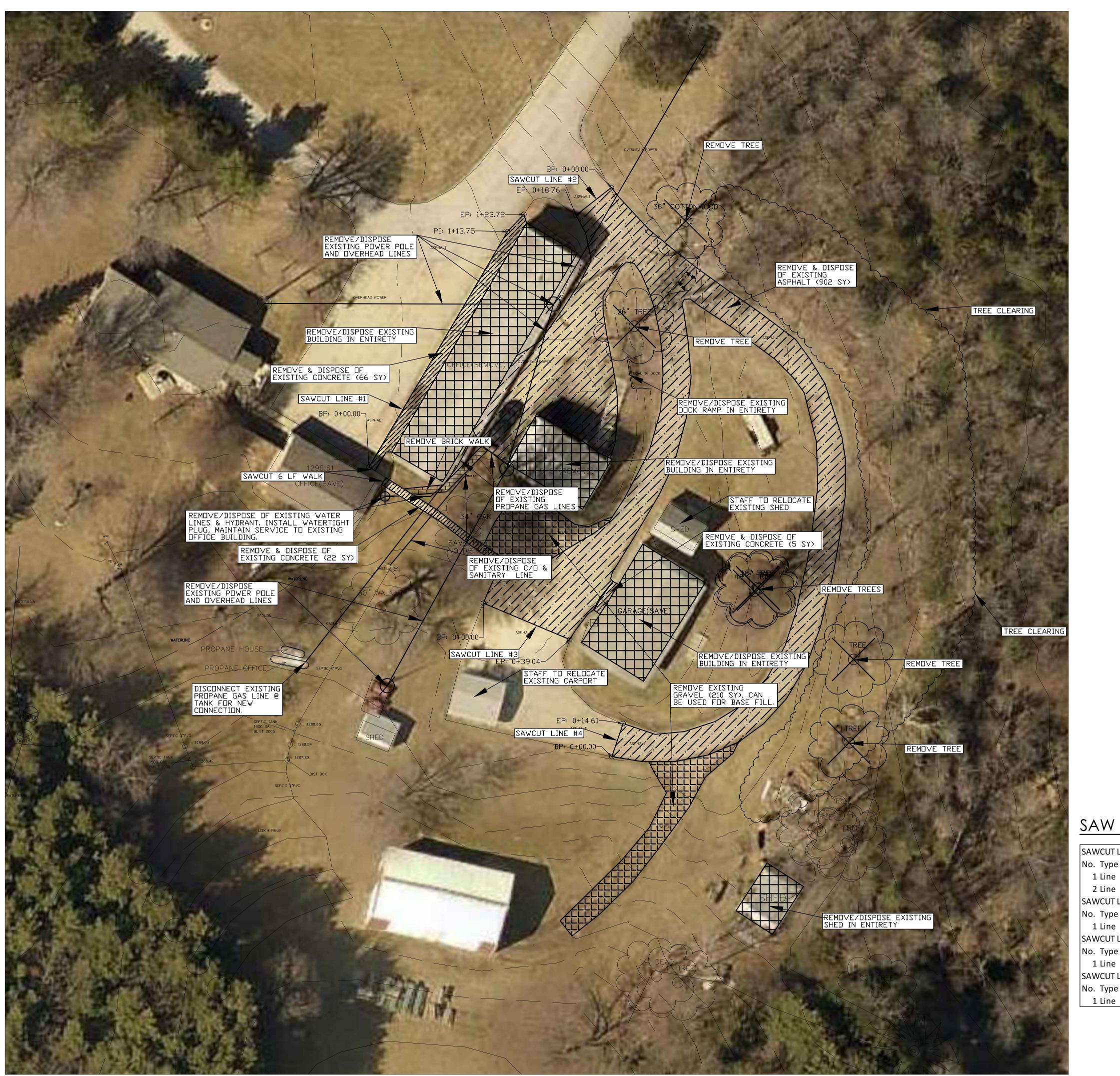
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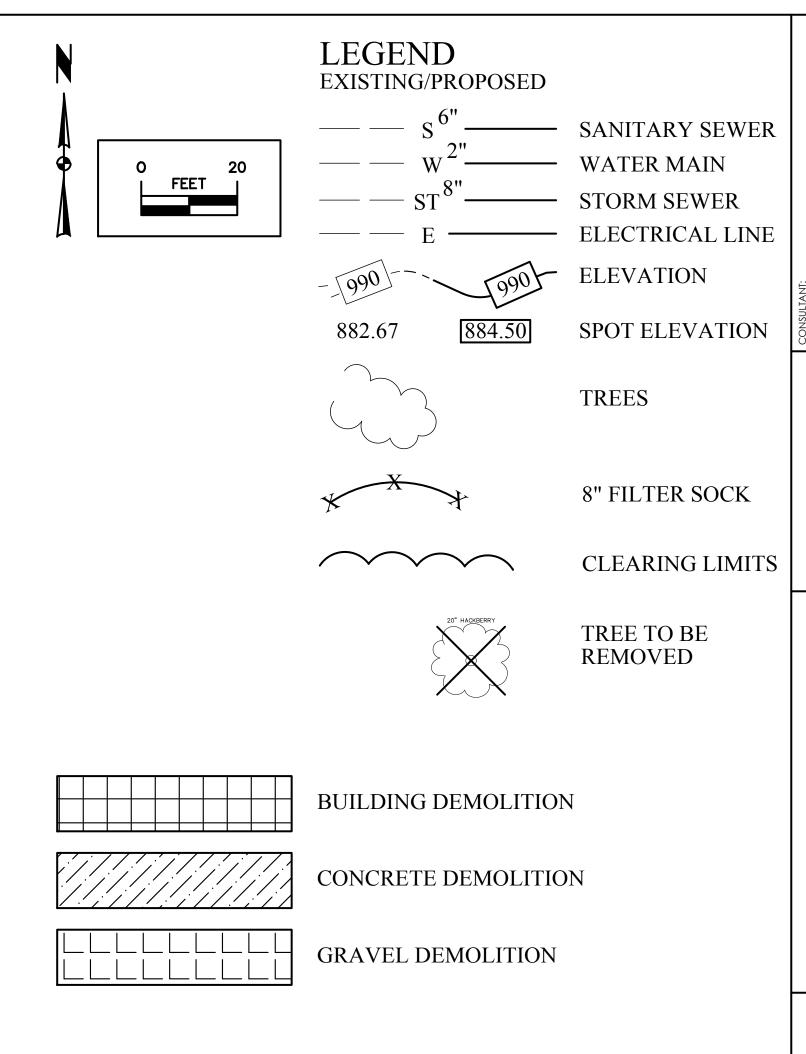
15-04-88-0 BY: DATE: 7,29,2015

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SURVEY

C<sub>1</sub>





### **DEMOLITION NOTES**

1. CONTRACTOR TO REMOVE 4 EXISTING BUILDINGS. REMOVAL SHALL INCLUDE THE ENTIRE BUILDING STRUCTURE, ROOF, FLOORS, WALLS, FOOTINGS IN THEIR ENTIRETY, REMOVE ALL PAVEMENT, SIDEWALKS, WATER SERVICE LINES (INSTALL WATERPROOF CAPS), SANITARY SEWER SERVICE LINES TO CLEANOUT, ELECTRIC SERVICE LINES, PROPANE GAS LINES, TELEPHONE SERVICE RISER AND SERVICE. REMOVE ALL BUILDING CONTENTS, DEBRIS, ETC. WITHIN BUILDINGS. ALL MATERIAL SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED PER LOCAL CODES AND REGULATIONS.

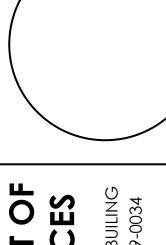
2. CONTRACTOR TO REMOVE UTILITY POWER POLES AND OVERHEAD ELECTRIC LINES AS SHOWN.
3. CONTRACTOR TO REMOVE EXISTING GRAVEL, STOCKPILE AND RESPREAD FOR

BASE IN NEW SHOP GRAVEL AREA OR ACCESS DRIVE TO SOUTH.

4. CONTRACTOR TO REMOVE EXISTING DOCK RAMP (RETAINING WALL, POSTS, ETC.) AND DISPOSE OF PROPERLY.

## SAW CUT LINE CONTROL

ĕ	SAWCUT L	INE#1					
á	No. Type	Length	Direction	Start Station	<b>End Station</b>	Start Point	End Point
ij.	1 Line	113.75'	N30° 27' 42"E	0+00.00'	1+13.75'	(1397825.7485',407041.5447')	(1397883.4159',407139.5944')
8	2 Line	9.97'	N43° 37' 24"E	1+13.75'	1+23.72'	(1397883.4159',407139.5944')	(1397890.2910',407146.8080')
ń	SAWCUT L	INE #2					
ē	No. Type	Length	Direction	Start Station	<b>End Station</b>	Start Point	End Point
à	1 Line	18.76'	S51° 57' 10"W	0+00.00'	0+18.76'	(1397926.7526',407157.9924')	(1397911.9760',407146.4280')
	SAWCUT L	INE #3					
	No. Type	Length	Direction	Start Station	<b>End Station</b>	Start Point	End Point
Ē	1 Line	39.04'	S67° 10' 52"E	0+00.00'	0+39.04'	(1397873.3635',406984.7952')	(1397909.3520',406969.6530')
ă	SAWCUT L	INE #4					
8	No. Type	Length	Direction	Start Station	<b>End Station</b>	Start Point	End Point
ī,	1 Line	14.61'	N18° 43' 35"E	0+00.00'	0+14.61'	(1397926.9320',406920.8100')	(1397931.6219',406934.6447')
3							



FURAL RESOURCES

FING SERVICES - WALLACE BUILIN

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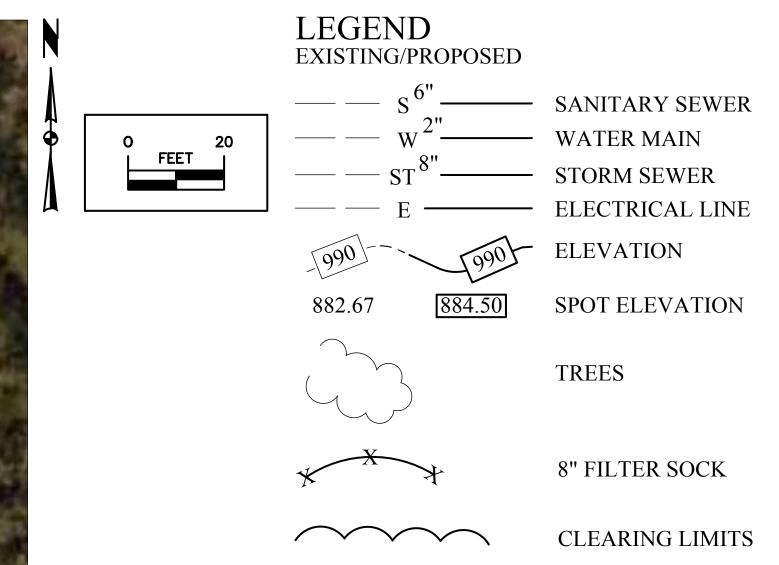
GREEN VALLEY STATE PARK

DEMOLITION

PROJECT NUMBER: 15-04-88-01 DATE: 7.29.2015

C2





### SAW CUT LINE CONTROL

SAWCUT	LINE #1					
No. Typ	e Length	Direction	Start Station	<b>End Station</b>	Start Point	End Point
1 Line	113.75'	N30° 27' 42"E	0+00.00'	1+13.75'	(1397825.7485',407041.5447')	(1397883.4159',407139.5944')
2 Line	9.97'	N43° 37' 24"E	1+13.75'	1+23.72'	(1397883.4159',407139.5944')	(1397890.2910',407146.8080')
SAWCUT	LINE #2					
No. Typ	e Length	Direction	Start Station	<b>End Station</b>	Start Point	End Point
1 Line	18.76'	S51° 57' 10"W	0+00.00'	0+18.76'	(1397926.7526',407157.9924')	(1397911.9760',407146.4280')
SAWCUT	LINE #3					
No. Typ	e Length	Direction	Start Station	<b>End Station</b>	Start Point	End Point
1 Line	39.04'	S67° 10' 52"E	0+00.00'	0+39.04'	(1397873.3635',406984.7952')	(1397909.3520',406969.6530')
SAWCUT	LINE #4					
No. Typ	e Length	Direction	Start Station	<b>End Station</b>	Start Point	End Point
1 Line	14.61'	N18° 43' 35"E	0+00.00'	0+14.61'	(1397926.9320',406920.8100')	(1397931.6219',406934.6447')

#### GENERAL NOTES

- 1. TWO WEEKS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY:
  - A. IOWA DNR PROJECT MANAGER: RYAN RICHEY 515-979-0107
  - DISTRICT INSPECTOR: MARK JOHNSON 515-250-3713
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATEWIDE URBAN STANDARD DESIGN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS). ALL CONSTRUCTION TESTING TO BE IN ACCORDANCE WITH SUDAS AND IS THE EXPENSE OF THE CONTRACTORS.
- 3. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ABOVE MENTIONED CONTACTS OF ANY DISCREPANCIES
- 4. THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING FACILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING, THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL PUBLIC AND/OR PRIVATE UTILITIES SERVING THE AREA TO DETERMINE THE PRESENT EXTENT AND LOCATION OF THEIR FACILITIES BEFORE BEGINNING
- 5. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES AT THE SITE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROPER UTILITY IMMEDIATELY UPON BREAKING OR DAMAGE TO ANY UTILITY LINE OR APPURTENANCE, OR THE INTERRUPTION OF THEIR SERVICE. HE SHALL NOTIFY THE PROPER UTILITY INVOLVED, IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED.
- 6. CONTRACTOR TO PROTECT ALL UTILITY, PAVING, BUILDINGS, ETC. DUTSIDE OF LIMITS OF PROPOSED CONSTRUCTION.
- 7. IN THE EVENT THAT THERE IS A DISCREPANCY BETWEEN THE QUANTITIES AND THE PLANS, THE DETAILED PLANS SHALL GOVERN.
- 8. CONTRACTOR SHALL SEED/MULCH ALL DISTURBED AREAS, USE TYPE 1 (PERMANENT LAWN MIXTURE) SEED
- 9. MAINTAIN ALL CUT AND FILL AREAS TO ACCOMMODATE SURFACE DRAINAGE.
- 10. FINISHED GRADE ON ALL NON-PAVED AREAS SHALL BE WITHIN 0.20 FOOT OF PLAN GRADE. PAVED AREAS SHALL BE WITHIN 0.10 FOOT
- 11. TOPSOIL SHALL BE SPREAD TO A MINIMUM THICKNESS OF 6-INCHES ON ALL DISTURBED UNPAVED AREAS. 12. BACKFILL TO THE TOP OF ALL ROCK OR PAVED SURFACES. 13. ALL ELEVATIONS ARE TO THE GUTTER GRADE UNLESS NOTED OTHERWISE.
- 14. PROTECT ALL EXISTING TREES AND VEGETATION UNLESS OTHERWISE NOTED.
- 15. ANY SPOIL MATERIAL THAT MAY BE GENERATED DURING THE CONSTRUCTION, COORDINATE LOCATION FOR DISPOSITION WITH THE DNR INSPECTOR AND IS CONSIDERED INCIDENTAL TO THE PROJECT.
- 16. SIDEWALKS SHALL BE 5-INCH PCC THICKNESS (75 SY) WITH 4-INCHES OF GRANULAR SUBBASE (15 TONS). #4 REINFORCING BARS TO BE LONGITUDINAL. SEE SIDEWALK DETAIL ON SHEET C6.
- 17. REINFORCED PCC PAVEMENT (FRONT PARKING AREA, 50 SY TOTAL) TO BE 6-INCH THICKNESS WITH 6-INCHES OF GRANULAR SUBBASE (16 TONS), REINFORCING TO BE #4 BARS, 5' OC. SEE SHEET C6 FOR REINFORCING DETAIL
- 18. INSTALL EXPANSION JOINTS AT END OF SIDEWALKS/SLABS WHERE THEY MEET BUILDING SLAB,
- 19. SAW CUT SIDEWALKS AS DIMENSIONED ON SHEET C7.
- 20. FOR JOINT DETAILS, SEE SHEET C6; FOR HANDICAP STRIPING AND SIGNAGE DETAILS SEE SHEET C7. 21. FOR PAVEMENT CROSS SECTION DETAIL AND SIDEWALK CROSS SECTION DETAIL SEE SHEET C6. 22. INSTALL 44 LINEAL FEET OF 6' HEIGHT, BLACK PVC COATED CHAIN LINK FENCING IN ACCORDANCE WITH SUDAS SECTION 9060, THIS INCLUDES A 20-FOOT DOUBLE SWING GATE, SEE FENCING DETAILS ON SHEET
- 23. INSTALL 474 TONS OF CLASS 'A' CRUSHED STONE FOR THE 6-INCH DEPTH STORAGE YARD AREA AND 69 TONS OF CLASS 'A' CRUSHED STONE FOR THE 6-INCH DEPTH ACCESS DRIVE TO THE RED BARN. 24. GRANULAR SUBBASE SHALL BE IN ACCORDANCE WITH IDOT SECTION 4121



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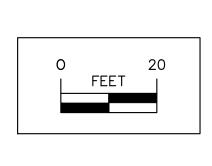
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DATE REVISION RAWN BY: PROJECT NUMBER:

15-04-88-01 7.29.2015



#### LEGEND EXISTING/PROPOSED



—— SANITARY SEWER — WATER MAIN — STORM SEWER — ELECTRICAL LINE **ELEVATION** 

SPOT ELEVATION **TREES** 

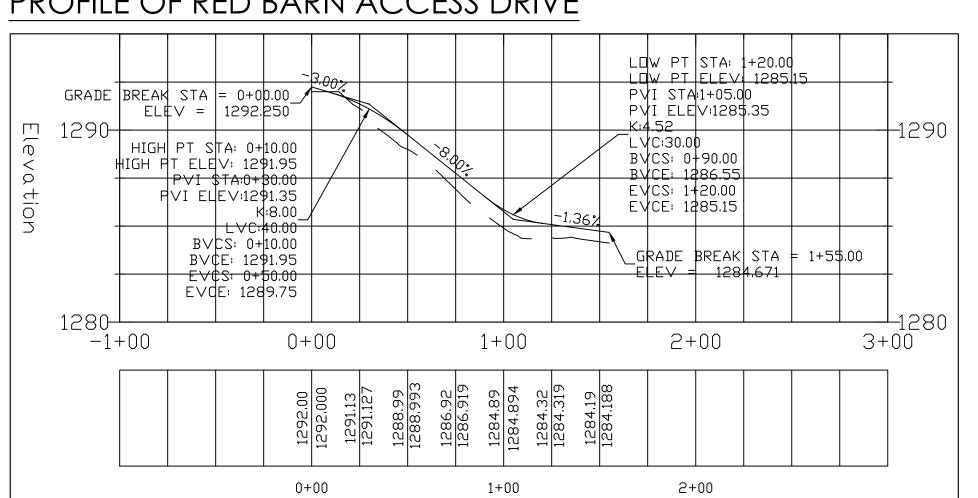
8" FILTER SOCK

**CLEARING LIMITS** 

#### GRADING NOTES

- 1. TWO WEEKS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY: IOWA DNR PROJECT MANAGER: RYAN RICHEY 515-979-0107 DISTRICT INSPECTOR: MARK JOHNSON 515-250-3713
- 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATEWIDE URBAN STANDARD DESIGN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS). ALL CONSTRUCTION TESTING TO BE IN ACCORDANCE WITH SUDAS AND IS THE EXPENSE OF THE CONTRACTORS.
- 3. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ABOVE MENTIONED CONTACTS OF ANY DISCREPANCIES.
- 4. THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING FACILITIES ARE IN ACCURDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL PUBLIC AND/OR PRIVATE UTILITIES SERVING THE AREA TO DETERMINE THE PRESENT EXTENT AND LOCATION OF THEIR FACILITIES BEFORE BEGINNING WORK. 5. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO
- PROTECT THE UTILITIES OR STRUCTURES AT THE SITE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROPER UTILITY IMMEDIATELY UPON BREAKING OR DAMAGE TO ANY UTILITY LINE OR APPURTENANCE, OR THE INTERRUPTION OF THEIR SERVICE. HE SHALL NOTIFY THE PROPER UTILITY INVOLVED. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED.
- 6. CONTRACTOR TO PROTECT ALL UTILITY, PAVING, BUILDINGS, ETC. OUTSIDE OF LIMITS OF PROPOSED CONSTRUCTION. 7. IN THE EVENT THAT THERE IS A DISCREPANCY BETWEEN THE QUANTITIES AND
- THE PLANS, THE DETAILED PLANS SHALL GOVERN. 8. CONTRACTOR SHALL SEED/MULCH ALL DISTURBED AREAS (APPROXIMATELY 1 ACRE). USE TYPE 1 (PERMANENT LAWN MIXTURE) SEED MIX.
- 9. MAINTAIN ALL CUT AND FILL AREAS TO ACCOMMODATE SURFACE DRAINAGE. 10. FINISHED GRADE ON ALL NON-PAVED AREAS SHALL BE WITHIN 0.20 FOOT OF PLAN GRADE, PAVED AREAS SHALL BE WITHIN 0.10 FOOT.
- 11. TOPSOIL SHALL BE SPREAD TO A MINIMUM THICKNESS OF 6-INCHES ON ALL
- DISTURBED UNPAVED AREAS. 12. BACKFILL TO THE TOP OF ALL ROCK OR PAVED SURFACES.
- 13. ALL ELEVATIONS ARE TO THE GUTTER GRADE UNLESS NOTED OTHERWISE. 14. EARTHWORK QUANTITY IS ROUGHLY 5,000 CY. THIS WILL BE PRIMARILY IMPORT. BORROW SITE IS LOCATED TO THE SOUTHEAST APPROXIMATELY 0.75 MILES DISTANCE, SEE BORROW SITE LOCATION DETAILS ON SHEET C5.
- 15. NPDES GENERAL PERMIT #2 WILL BE REQUIRED FOR THIS PROJECT AND IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND TO INSPECT AND LOG.

# PROFILE OF RED BARN ACCESS DRIVE



RED BARN ACCESS DRIVE CENTERLINE CONTROL

0+39.40' 67.0251 (d) 27.61' 0+47.49' 1+42.04' 108.3471 (d) 81.08'

**End Point** (1397929.2770',406927.7274') (1397938.8965',406924.4664') (1397938.8965',406924.4664') (1397955.8015',406902.6419') (1397930.8702',406900.7898') (1397955.8015',406902.6419') (1397956.4003',406894.5812') S49° 55' 31"W (1397956.4003',406894.5812') (1397894.3581',406842.3833') (1397906.5377',406890.8771') (1397894.3581',406842.3833') (1397881.7821',406845.5418')

Center Point

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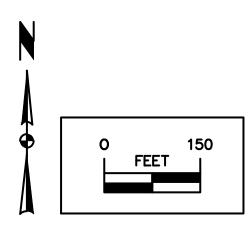
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7.29.2015





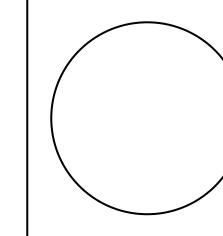
## BORROW SITE NOTES

1. EARTHWORK QUANTITY IS ROUGHLY 5,000 CY. THIS WILL BE PRIMARILY IMPORT. BORROW SITE IS LOCATED TO THE SOUTHEAST APPROXIMATELY 0.75 MILES DISTANCE.

2. MAINTAIN ALL CUT AND FILL AREAS TO ACCOMMODATE SURFACE DRAINAGE.

3. TOPSOIL SHALL BE SPREAD TO A MINIMUM THICKNESS OF 6-INCHES ON ALL DISTURBED AREAS.

4. CONTRACTOR SHALL SEED/MULCH ALL DISTURBED AREAS . USE TYPE 1 (PERMANENT LAWN MIXTURE) SEED MIX.

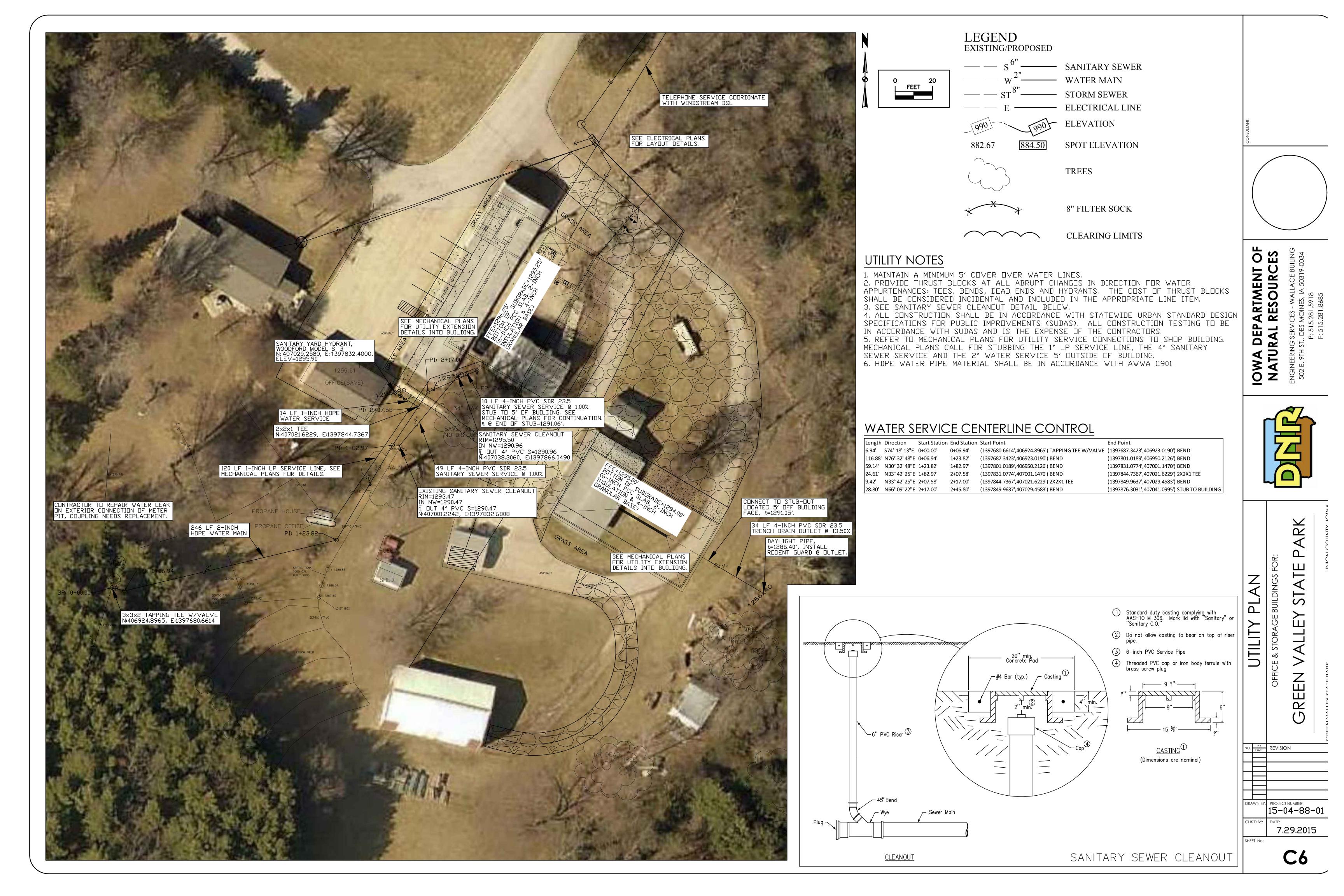


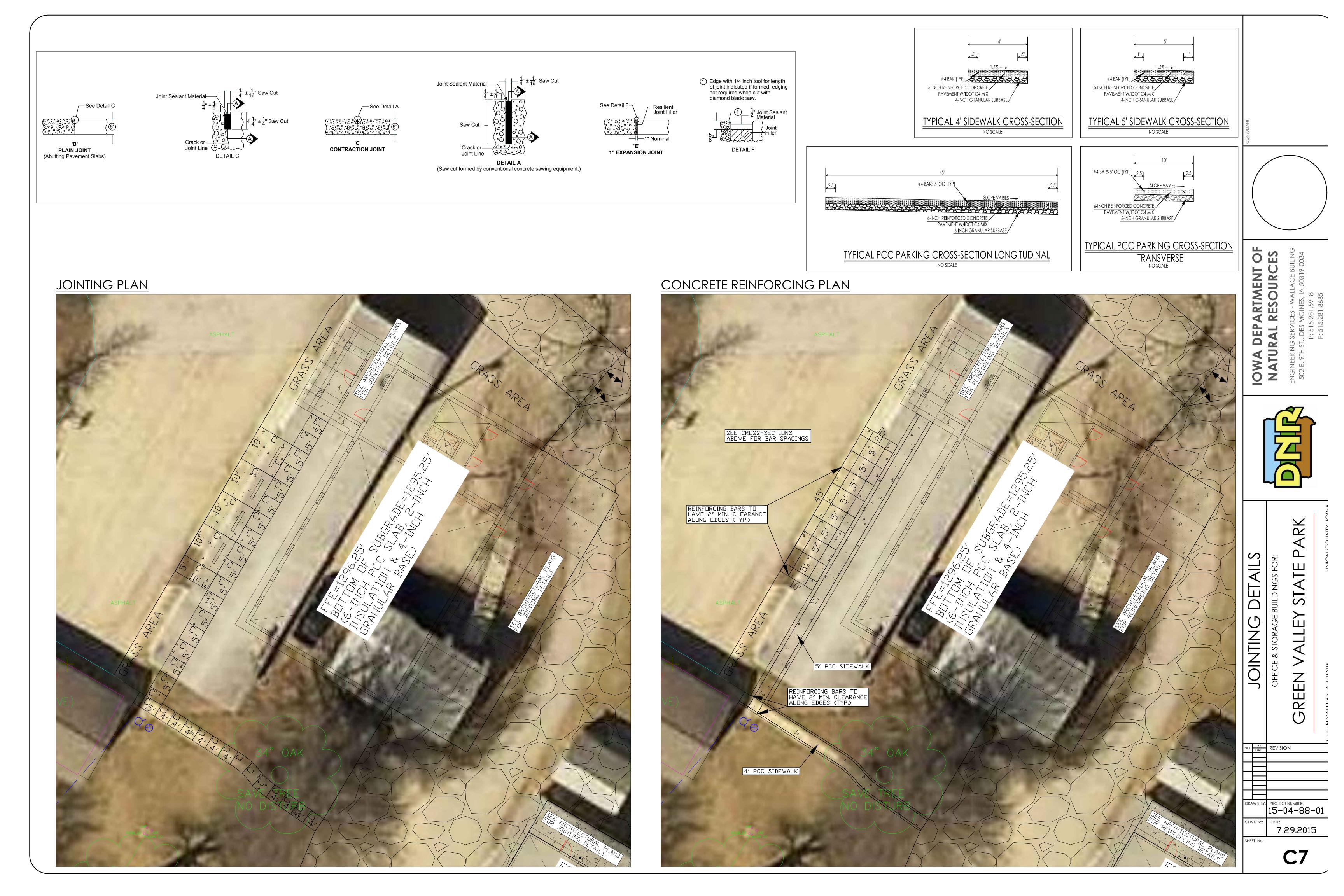
BORROW

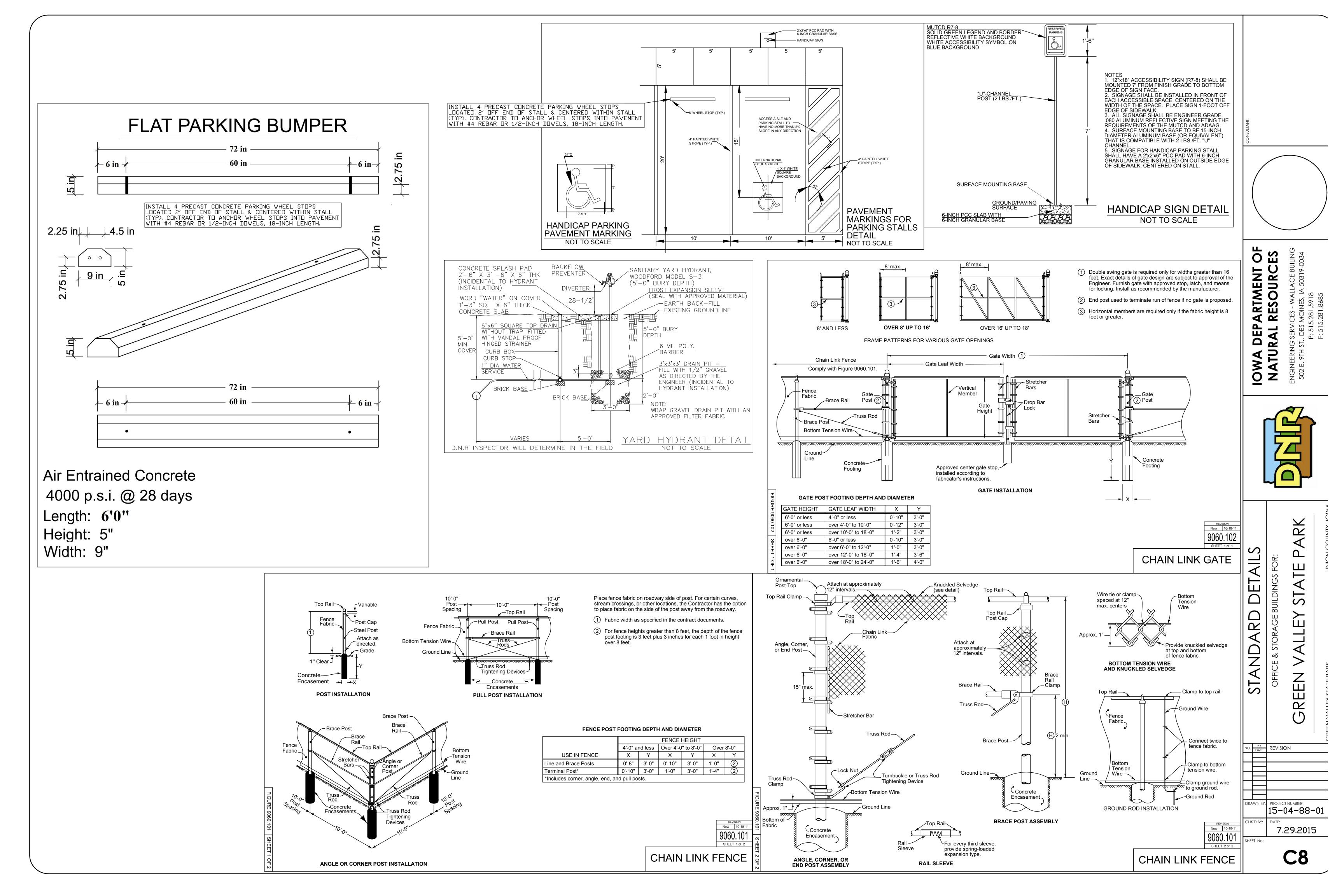
GRADING

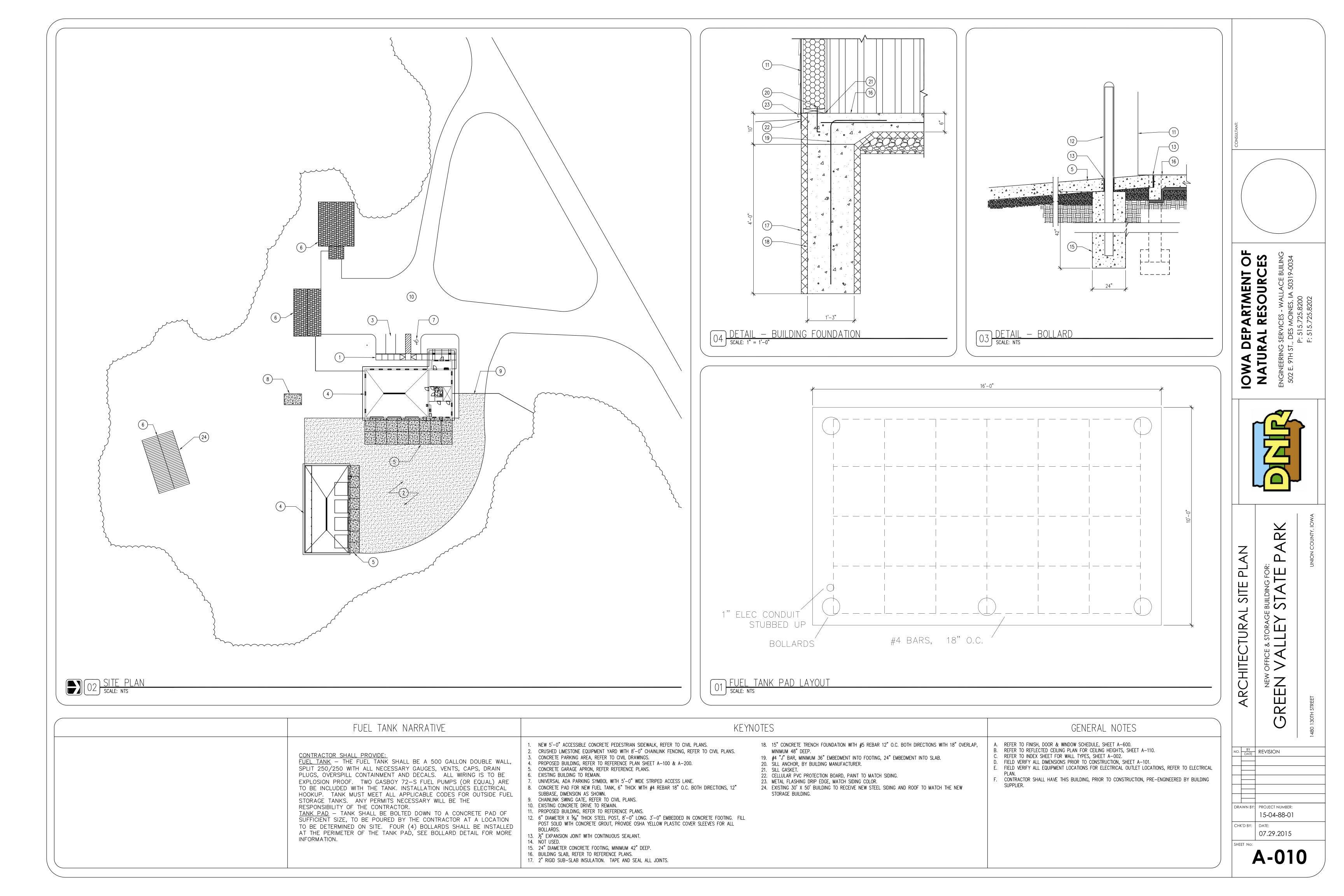
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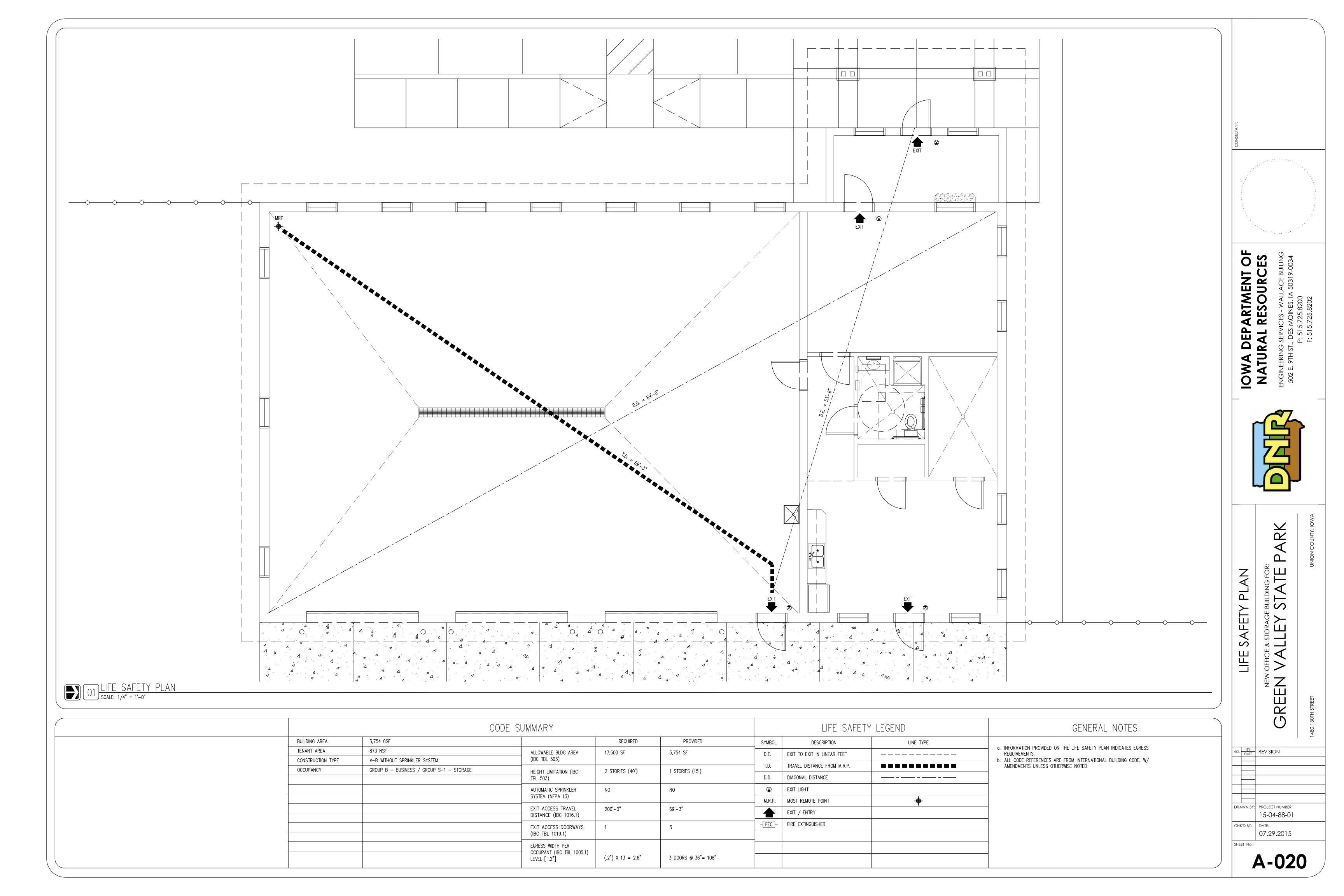
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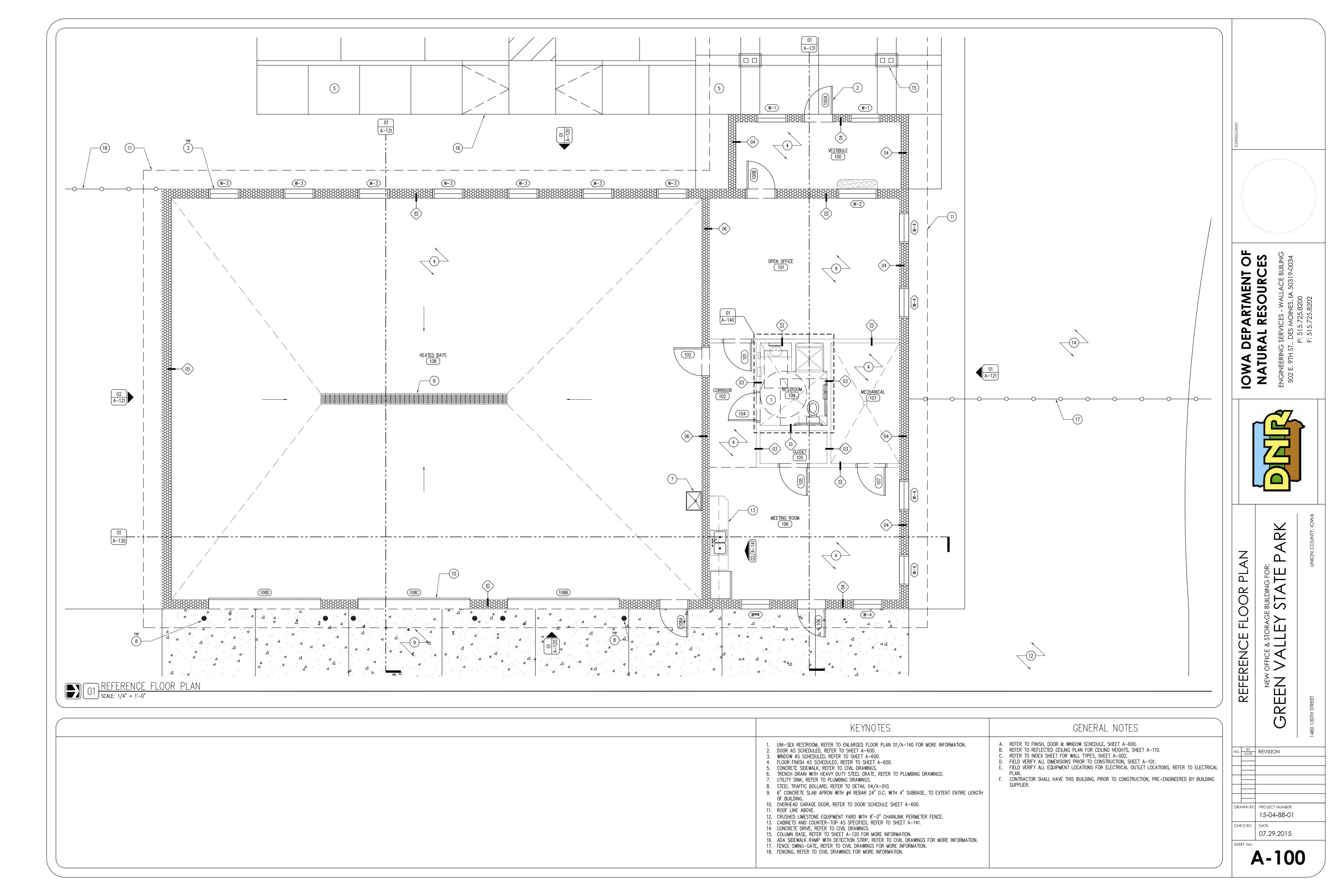


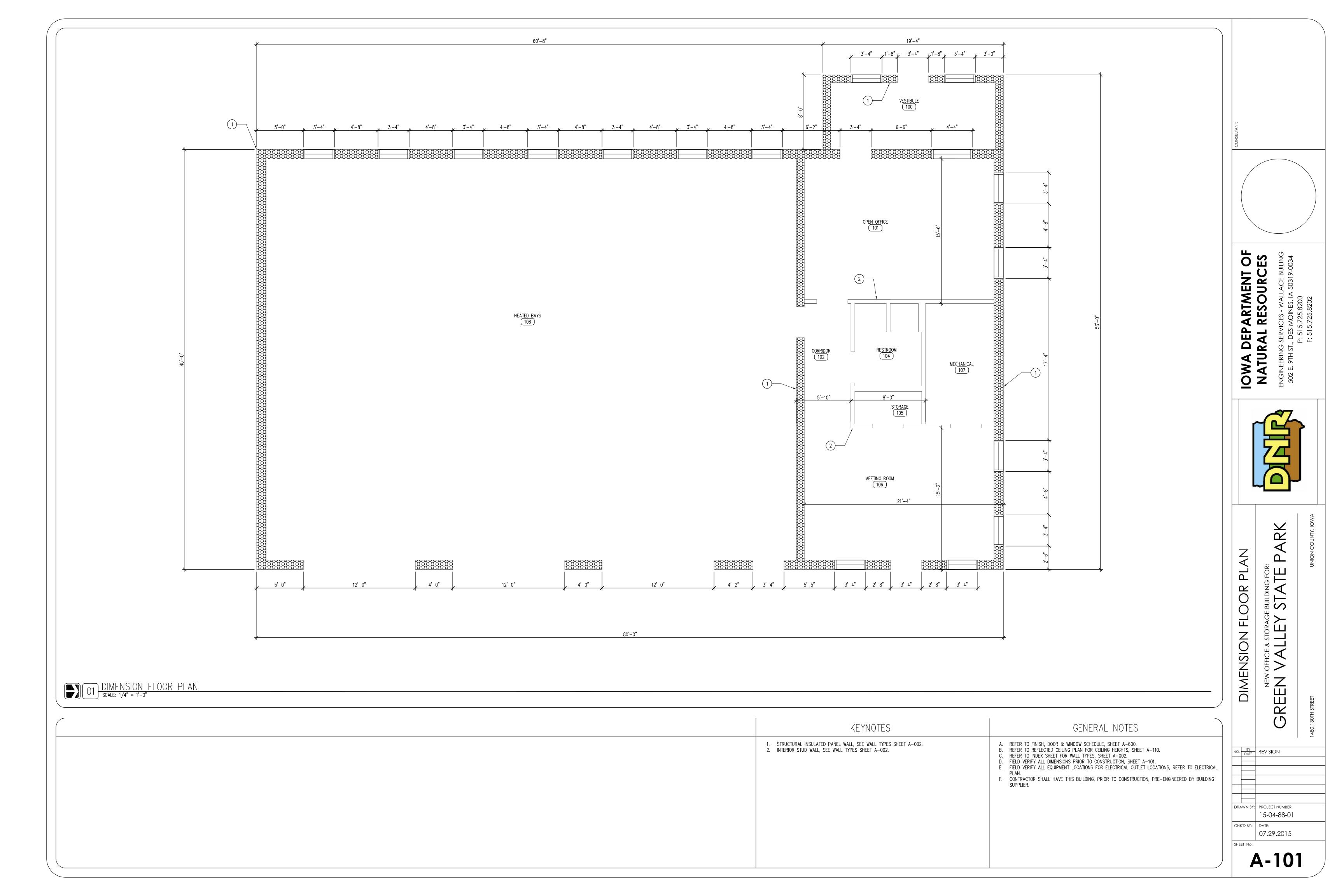


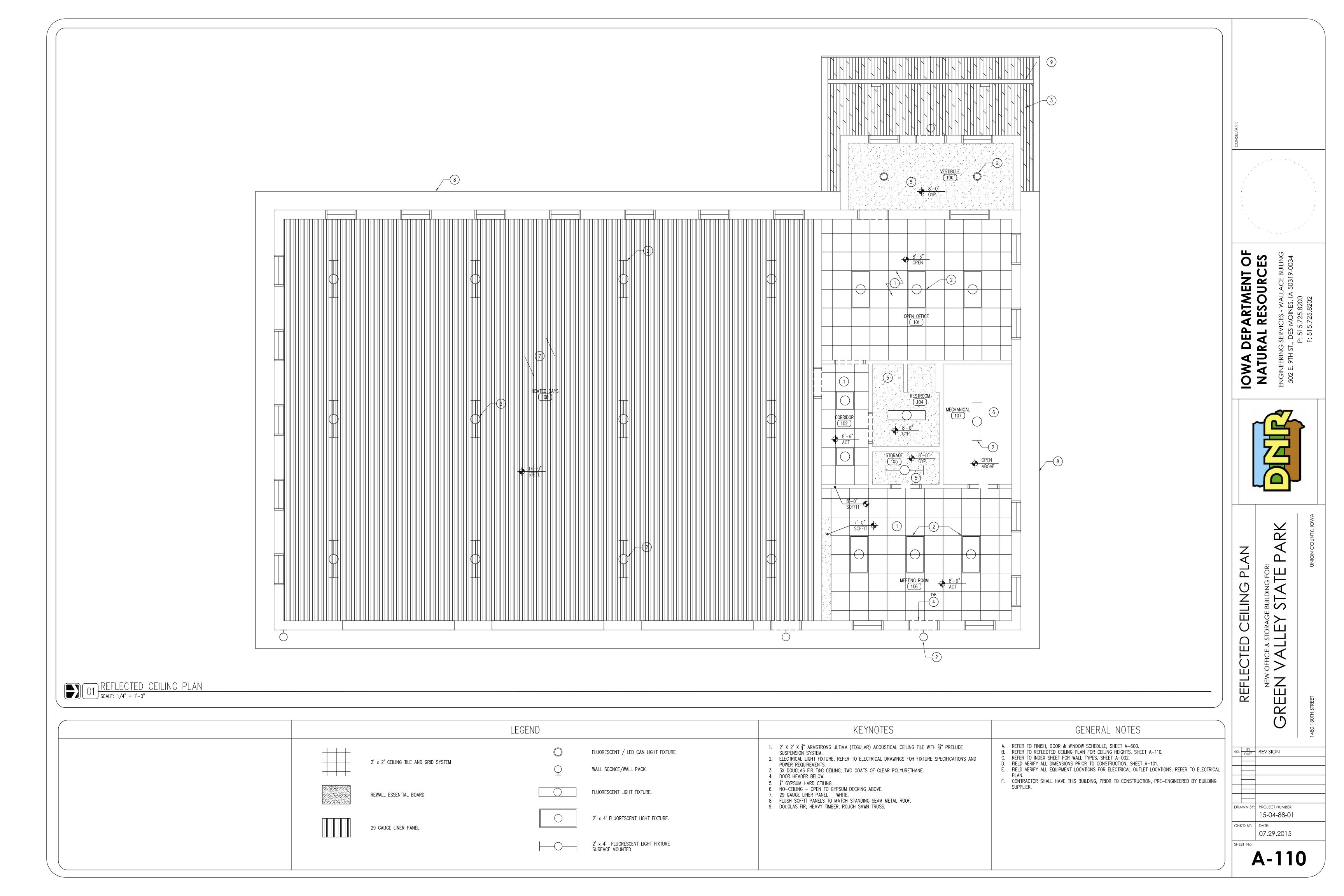


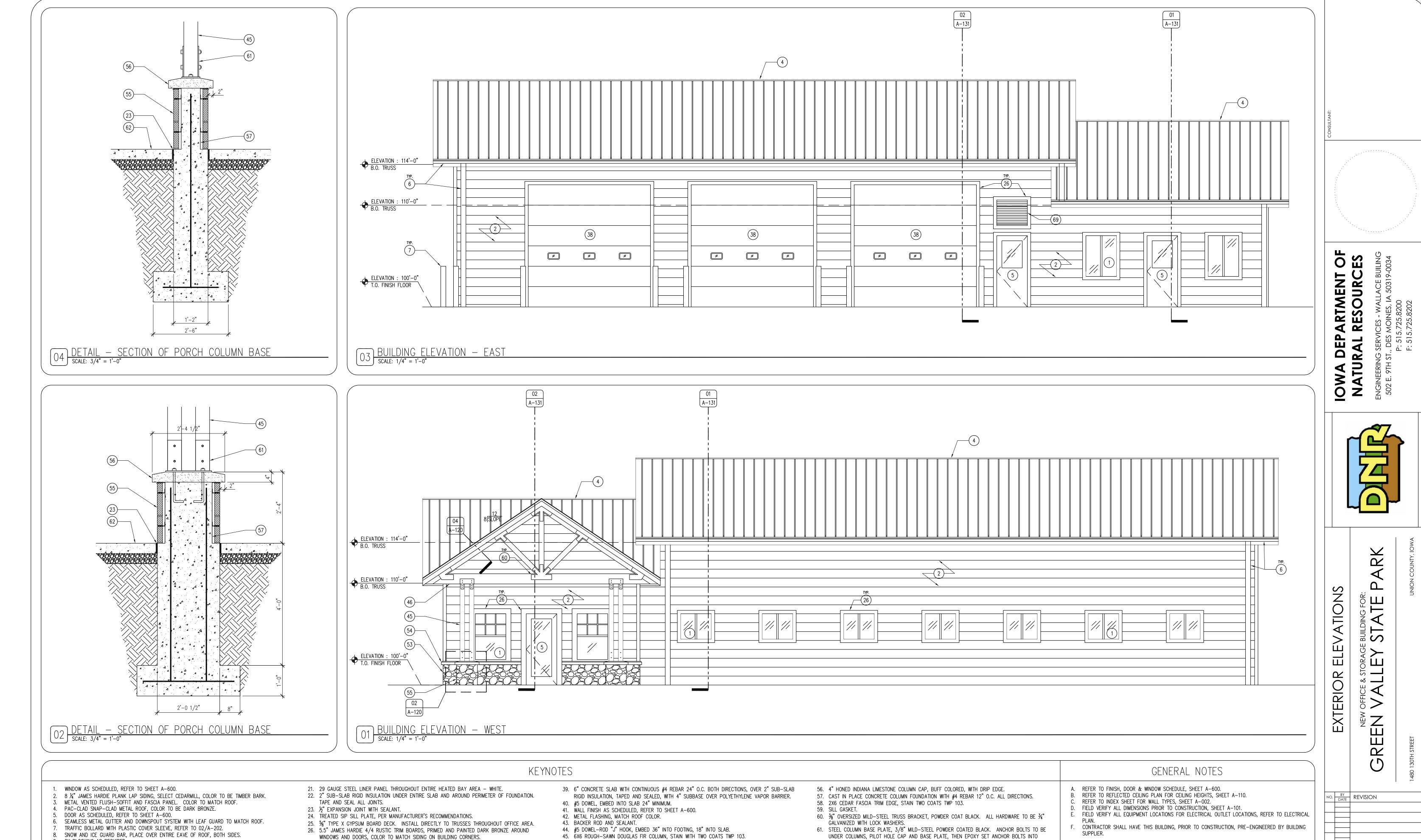












46. HEAVY TIMBER, ROUGH-SAWN DOUGLAS FIR TRUSS, STAIN TWO COATS TWP 103 WITH OVERSIZED

53. STONE WATER-TABLE, STONE TO BE ROUND-SIDE OUT, SPLIT-FACE, GRANITE BOULDERS - THIN

54. 4" HONED INDIANA LIMESTONE WATER-TABLE DRIP EDGE CAP-STONE, BUFF COLORED.

METAL BRACKETS AS SHOWN, POWDER COAT BLACK.

48. 3X DOUGLAS FIR T&G DECKING, TWO COATS OF CLEAR POLYURETHANE.

VENEER, BY EDEN STONE. MORTAR TO BE ASTM C270, COLOR TBD.

47. 34" X 4" HARD MAPLE TRIM, REFER TO SHEET A-600.

55. STONE COLUMN BASE, STONE TO MATCH WALL STONE.

49. CEILING AS SCHEDULED, REFER TO SHEET A-110.

50. UTILITY SINK, REFER TO PLUMBING DRAWINGS.

51. RUBBER BASE, REFER TO SHEET A-600.

52. CELLULAR PVC PROTECTION BOARD.

CONCRETE BASE, LEVEL. EMBED MINIMUM 18".

65. 2X OUTRIGGER EAVE, PER BUILDING MANUFACTURER.

69. LOUVER VENT, REFER TO MECHANICAL DRAWINGS.

62. CONCRETE WALK WITH SUBBASE, REFER TO CIVIL DRAWINGS.

66. METAL RAKE EDGE FLASHING BY ROOFING MANUFACTURER.

63. SILL ANCHOR, PER BUILDING MANUFACTURER'S RECOMMENDATIONS.

64. WATER AND ICE SHIELD OVER ENTIRE ROOF DECKING PER MANUFACTURER'S RECOMMENDATIONS.

67. 6" CONCRETE APRON SLAB WITH CONTINUOUS #4 REBAR 24" O.C. BOTH DIRECTIONS WITH 4"

68. STOOP FOOTING, EXTEND 48", #5 DOWELS INTO SLAB 12" O.C., 18" EMBEDMENT MINIMUM.

2X BLOCKING AS REQUIRED.

11. TRUSS HANGER CLIP (SPECIFIED BY BUILDING MANUFACTURER).

14. VAPOR BARRIER, PER MANUFACTURER'S RECOMMENDATIONS.

16. R-42 CERTAINTEED FIBER-GLASS BATT ROOF INSULATION.

18. PAC-CLAD RIDGE VENT AND CAP, MATCH COLOR OF ROOF.

19. ROOF CLIPS, PER MANUFACTURER'S RECOMMENDATIONS.

13. STRUCTURAL INSULATED PANEL (SIP) WALL, BY BUILDING MANUFACTURER.

20. CONTINUOUS TRENCH FOOTING FOUNDATION, REFER TO DETAIL 02/A-130.

12. TRUSS (SPECIFIED BY BUILDING MANUFACTURER), FOR DEMONSTRATION PURPOSES ONLY.

17. 34" PLYWOOD ROOF DECK SHEATHING WITH WATER AND ICE SHIELD OVER ENTIRE ROOF.

15. TOP PLATE WITH SEALANT ON ALL POINTS, PER BUILDING MANUFACTURER'S RECOMMENDATIONS.

10. INSULATION BAFFLE.

27. 6" SOUND BATT INSULATION.

28. 4" SOUND BATT INSULATION.

33. 6" R-19 BATT INSULATION.

29. ADA ACCESSIBLE DOOR THRESHOLD.

PARTITION WALL AS SCHEDULED, REFER TO SHEET A-002.

32. TRENCH DRAIN, REFER TO PLUMBING DRAWINGS.

34. 2X FASCIA, WRAP IN BREAK METAL TO MATCH ROOF.

35. METAL VALLEY FLASHING BY ROOFING MANUFACTURER.

37. METAL HEAD-WALL FLASHING BY ROOFING MANUFACTURER.

36. METAL SILL FLASHING BY BUILDING MANUFACTURER.

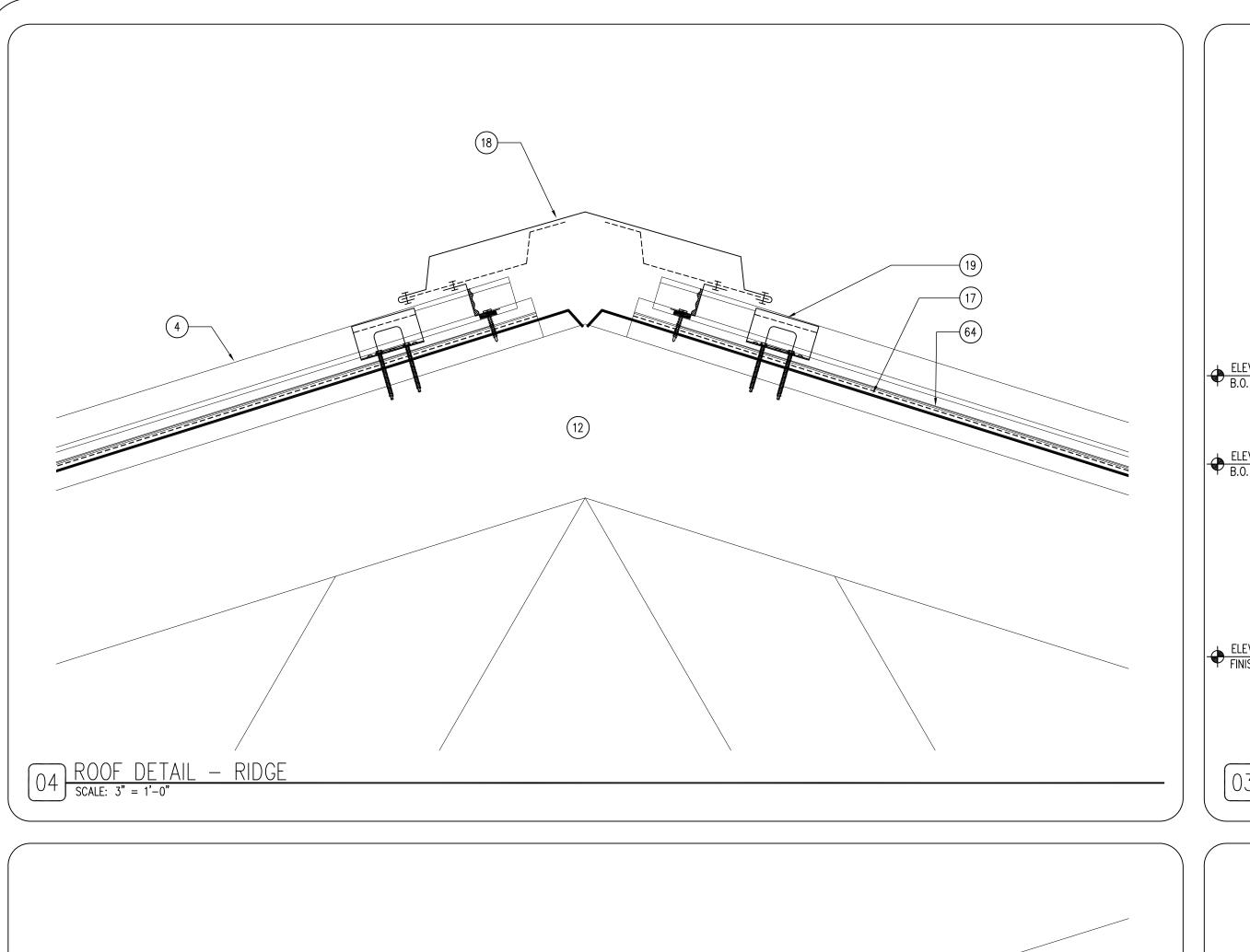
38. OVERHEAD GARAGE DOOR, REFER TO SHEET A-600.

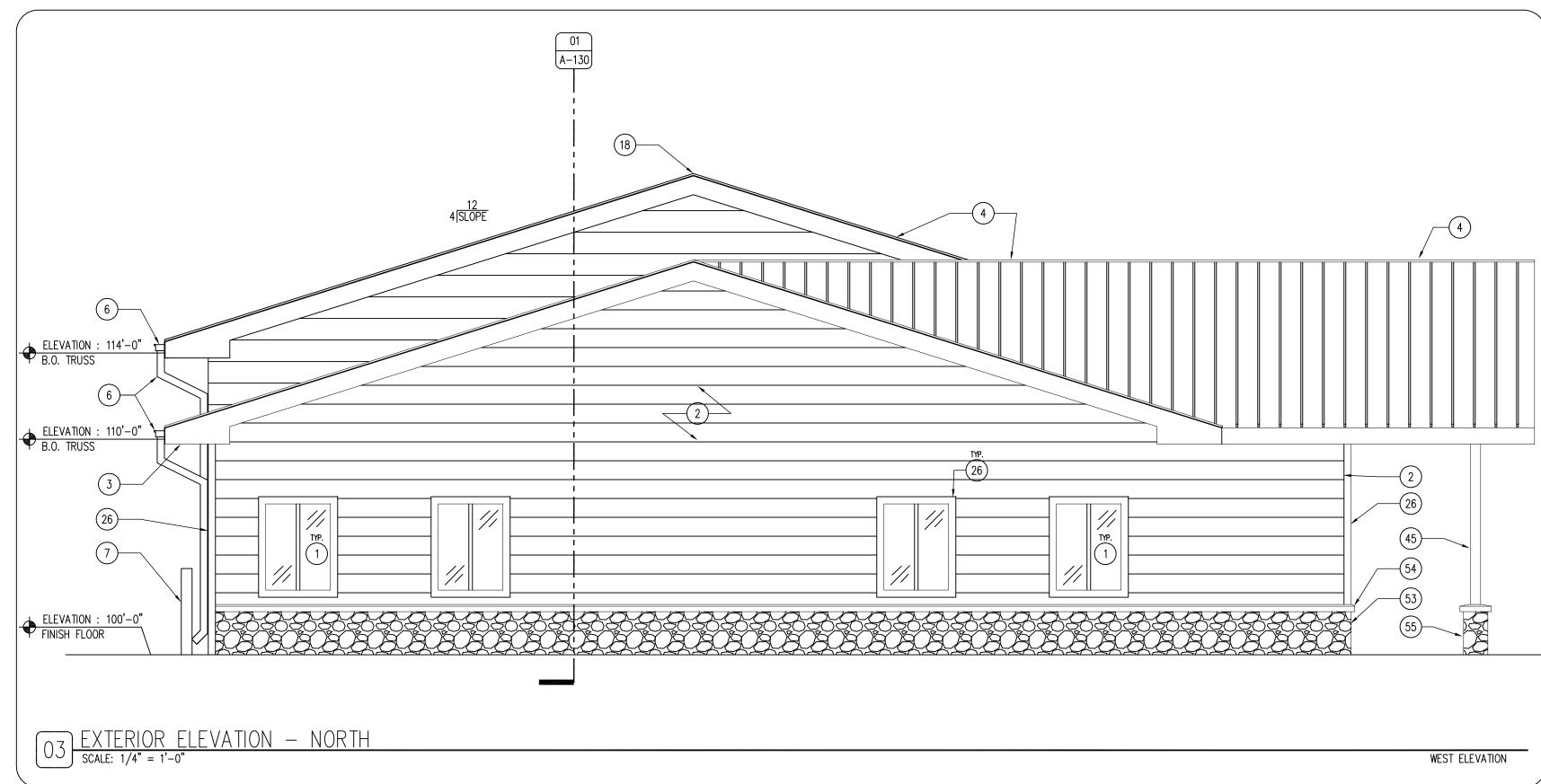
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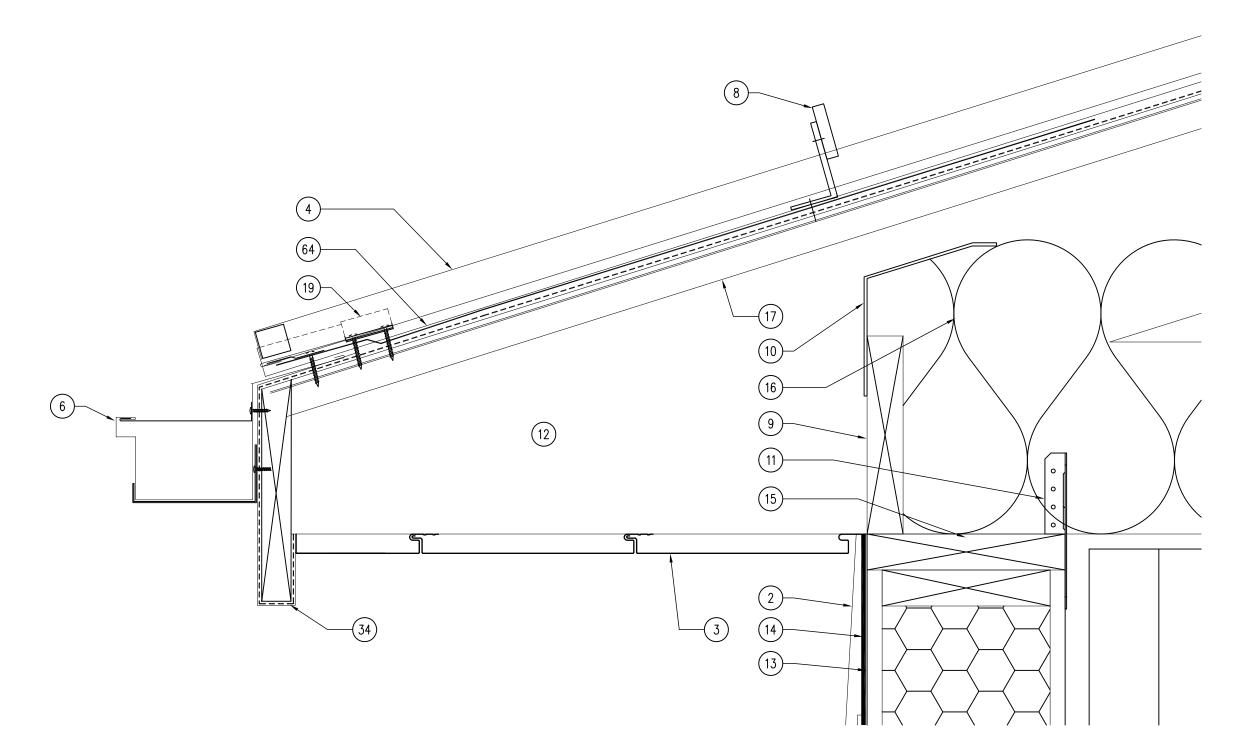
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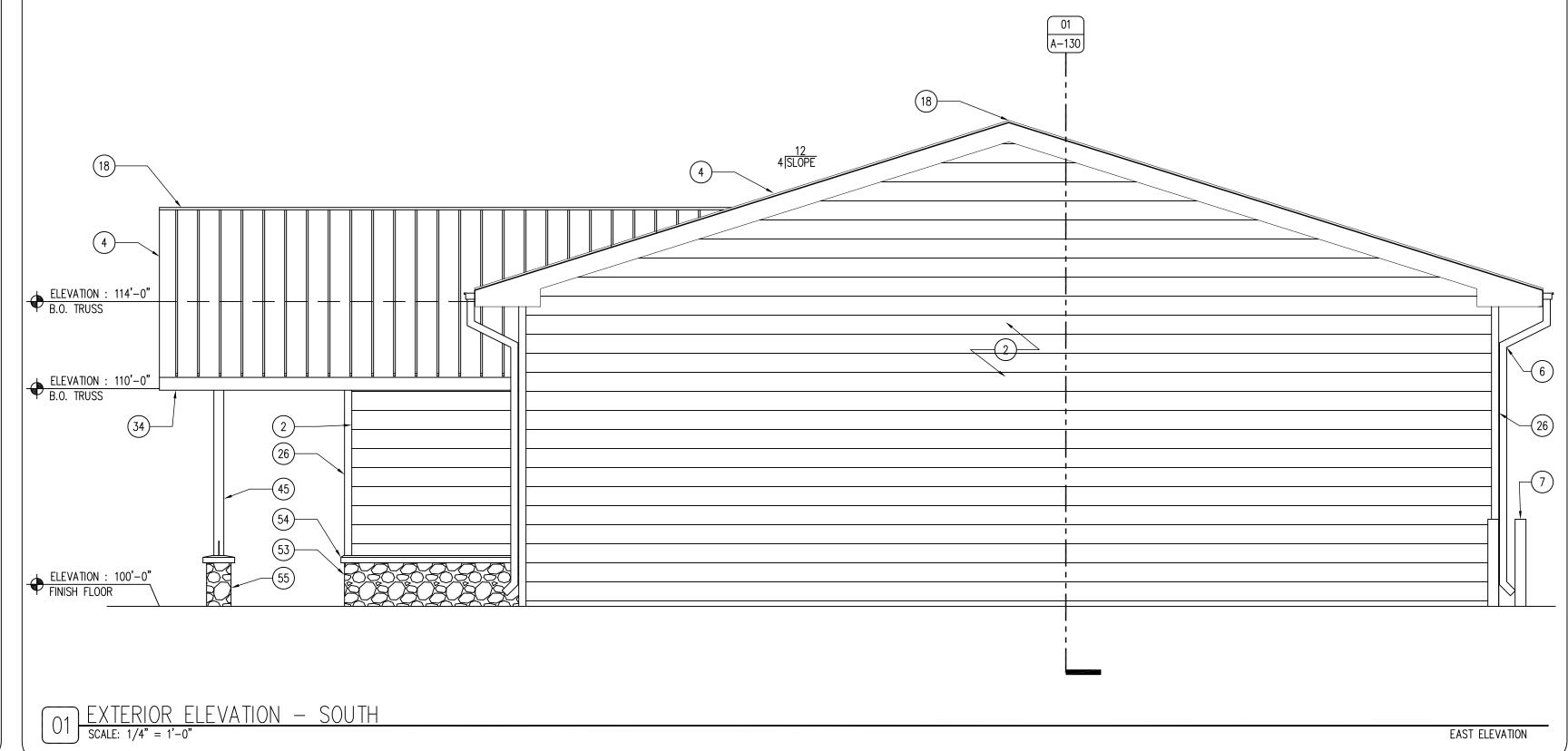
CHK'D BY: DATE: 07.29.2015

SHEET No:









KEYNOTES WINDOW AS SCHEDULED, REFER TO SHEET A-600. 21. 29 GAUGE STEEL LINER PANEL THROUGHOUT ENTIRE HEATED BAY AREA - WHITE. . 8  $\chi$ " JAMES HARDIE PLANK LAP SIDING, SELECT CEDARMILL, COLOR TO BE TIMBER BARK. TAPE AND SEAL ALL JOINTS. METAL VENTED FLUSH-SOFFIT AND FASCIA PANEL. COLOR TO MATCH ROOF. 4. PAC-CLAD SNAP-CLAD METAL ROOF, COLOR TO BE DARK BRONZE. 23. 1/2" EXPANSION JOINT WITH SEALANT. 5. DOOR AS SCHEDULED, REFER TO SHEET A-600. 24. TREATED SIP SILL PLATE, PER MANUFACTURER'S RECOMMENDATIONS. 6. SEAMLESS METAL GUTTER AND DOWNSPOUT SYSTEM WITH LEAF GUARD TO MATCH ROOF. 25. 5%" TYPE X GYPSUM BOARD DECK. INSTALL DIRECTLY TO TRUSSES THROUGHOUT OFFICE AREA. TRAFFIC BOLLARD WITH PLASTIC COVER SLEEVE, REFER TO 02/A-202. 26. 5.5" JAMES HARDIE 4/4 RUSTIC TRIM BOARDS, PRIMED AND PAINTED DARK BRONZE AROUND 8. SNOW AND ICE GUARD BAR, PLACE OVER ENTIRE EAVE OF ROOF, BOTH SIDES. WINDOWS AND DOORS, COLOR TO MATCH SIDING ON BUILDING CORNERS. 2X BLOCKING AS REQUIRED. 10. INSULATION BAFFLE.

- 22. 2" SUB-SLAB RIGID INSULATION UNDER ENTIRE SLAB AND AROUND PERIMETER OF FOUNDATION.
- 29. ADA ACCESSIBLE DOOR THRESHOLD.
- 12. TRUSS (SPECIFIED BY BUILDING MANUFACTURER), FOR DEMONSTRATION PURPOSES ONLY.
- 13. STRUCTURAL INSULATED PANEL (SIP) WALL, BY BUILDING MANUFACTURER. 14. VAPOR BARRIER, PER MANUFACTURER'S RECOMMENDATIONS.
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- 27. 6" SOUND BATT INSULATION.
- 28. 4" SOUND BATT INSULATION.
- 30. 24 X 24 ARMSTRONG ULTIMA TEGULAR ACOUSTIC CEILING TILES, REFER TO SHEET A-600.
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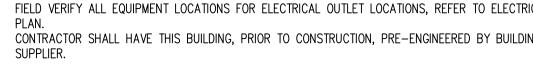
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  - 40. #5 DOWEL, EMBED INTO SLAB 24" MINIMUM.
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  - 42. METAL FLASHING, MATCH ROOF COLOR.
  - 43. BACKER ROD AND SEALANT. 44. #5 DOWEL-ROD "J" HOOK, EMBED 36" INTO FOOTING, 18" INTO SLAB.
  - 45. 6X6 ROUGH-SAWN DOUGLAS FIR COLUMN, STAIN WITH TWO COATS TWP 103. 46. HEAVY TIMBER, ROUGH-SAWN DOUGLAS FIR TRUSS, STAIN TWO COATS TWP 103 WITH OVERSIZED
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- REFER TO INDEX SHEET FOR WALL TYPES, SHEET A-002.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION, SHEET A-101.
- E. FIELD VERIFY ALL EQUIPMENT LOCATIONS FOR ELECTRICAL OUTLET LOCATIONS, REFER TO ELECTRICAL

- SUPPLIER.



CONTRACTOR SHALL HAVE THIS BUILDING, PRIOR TO CONSTRUCTION, PRE-ENGINEERED BY BUILDING

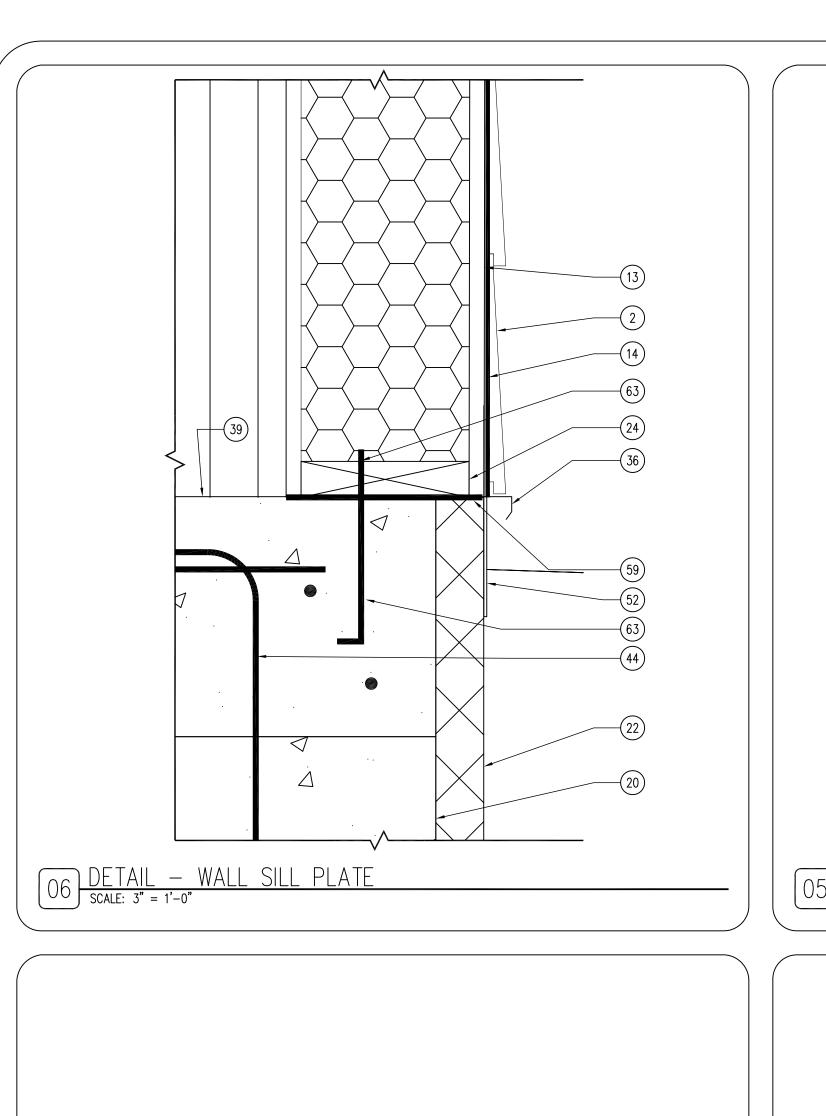
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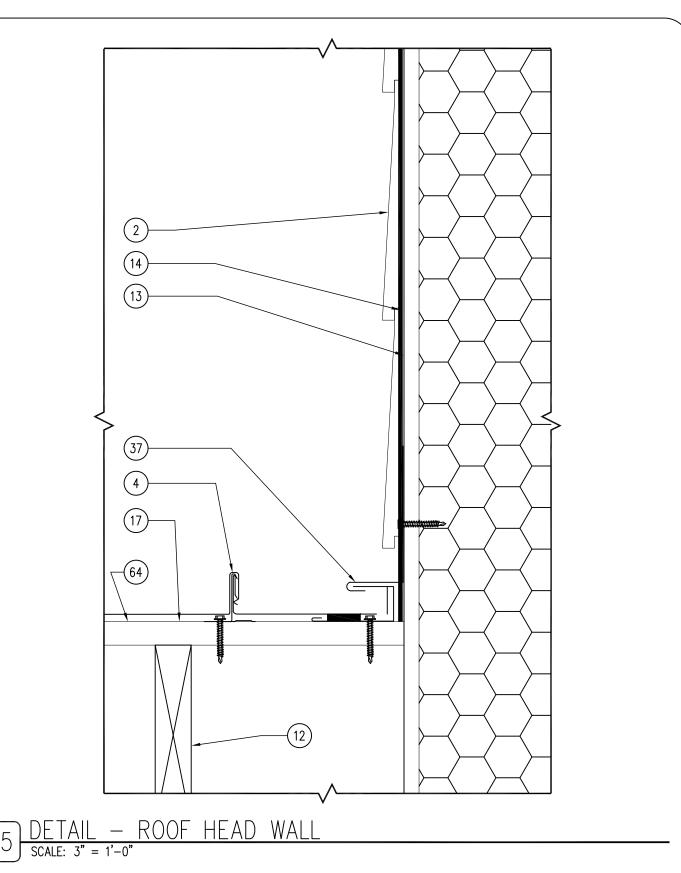
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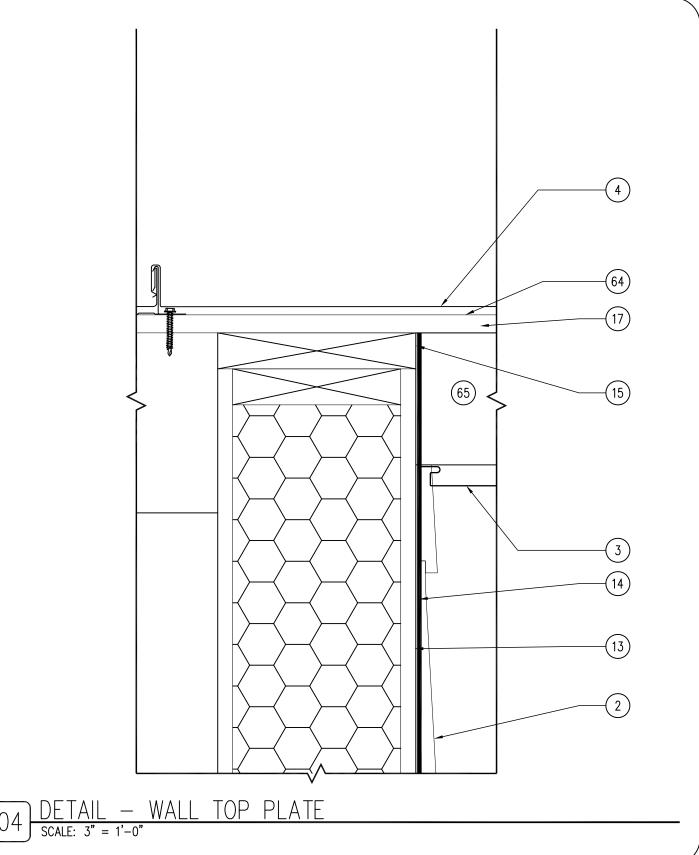
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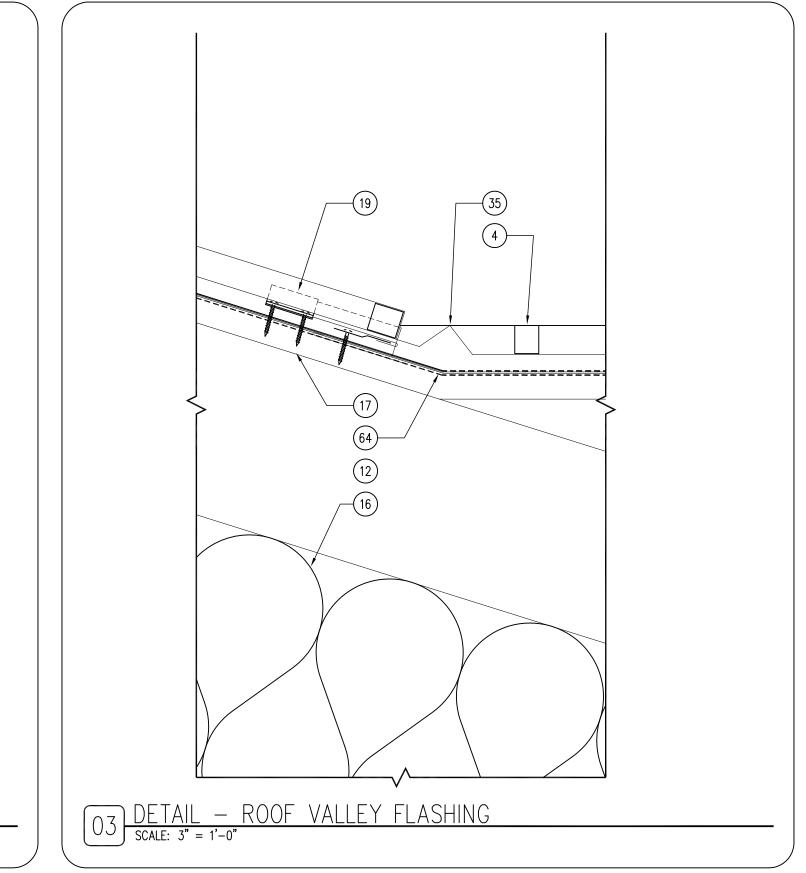
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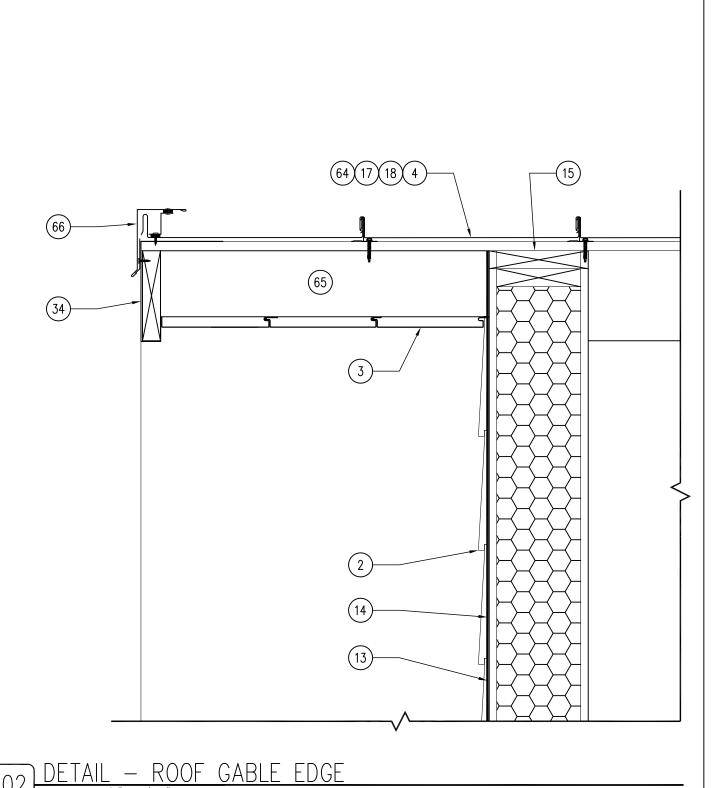
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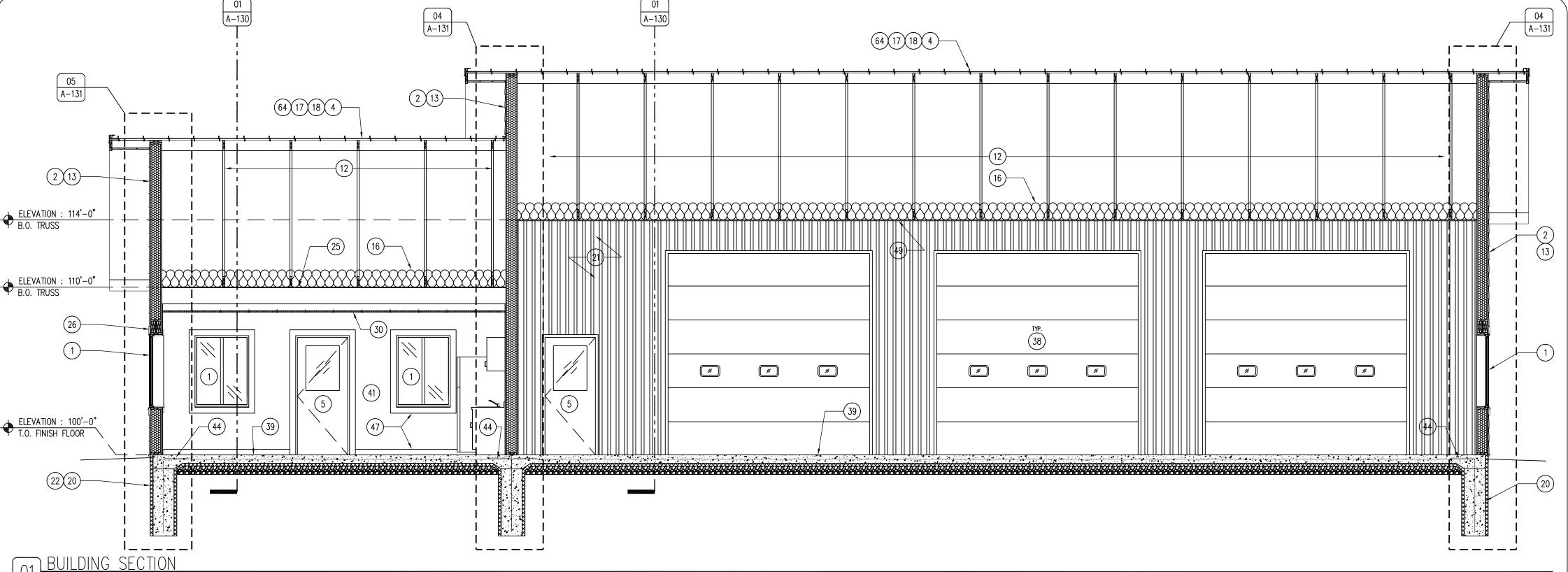


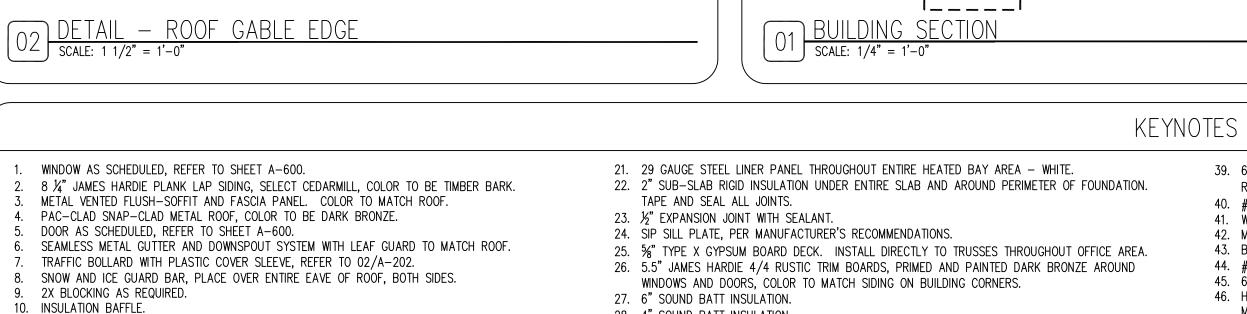












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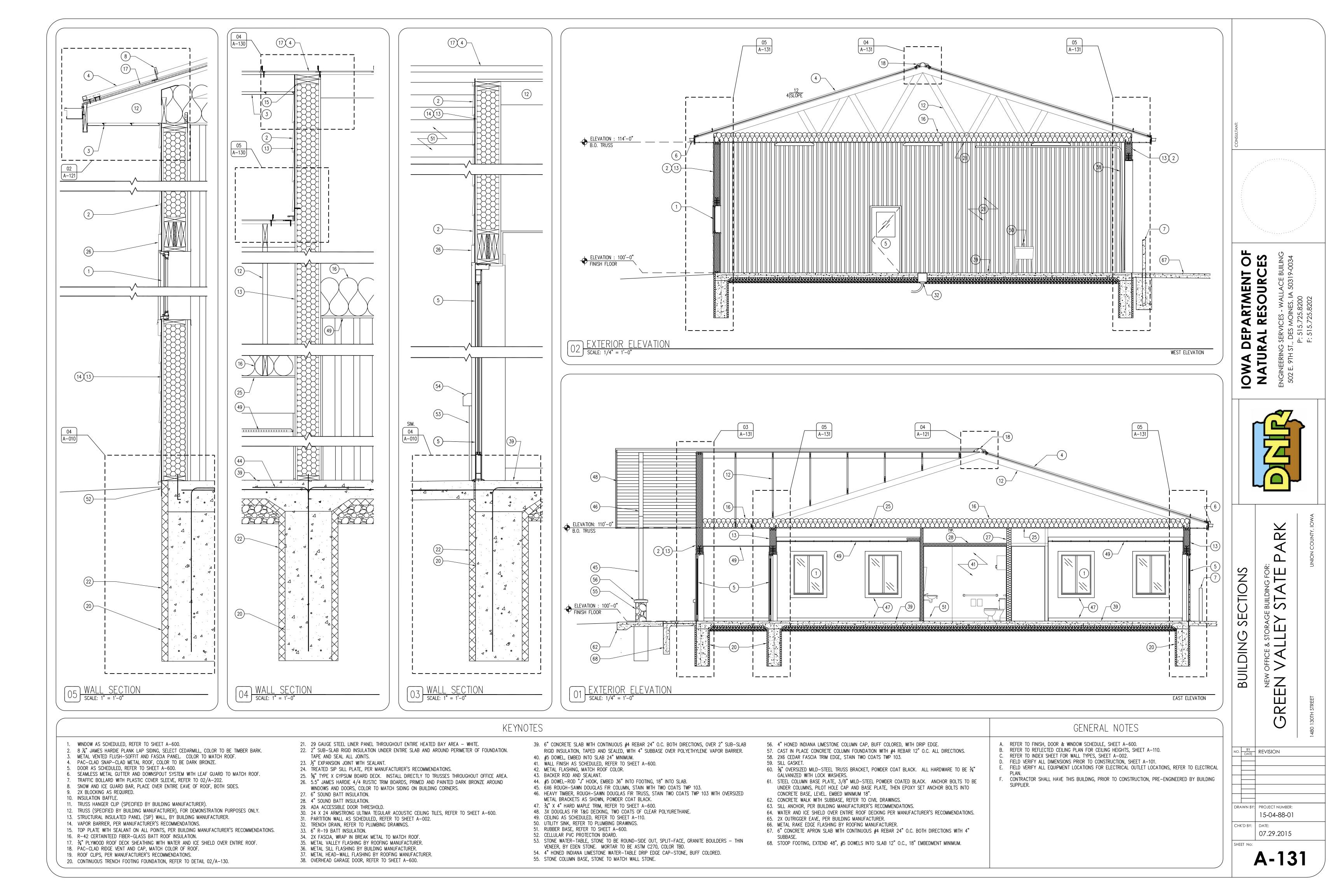
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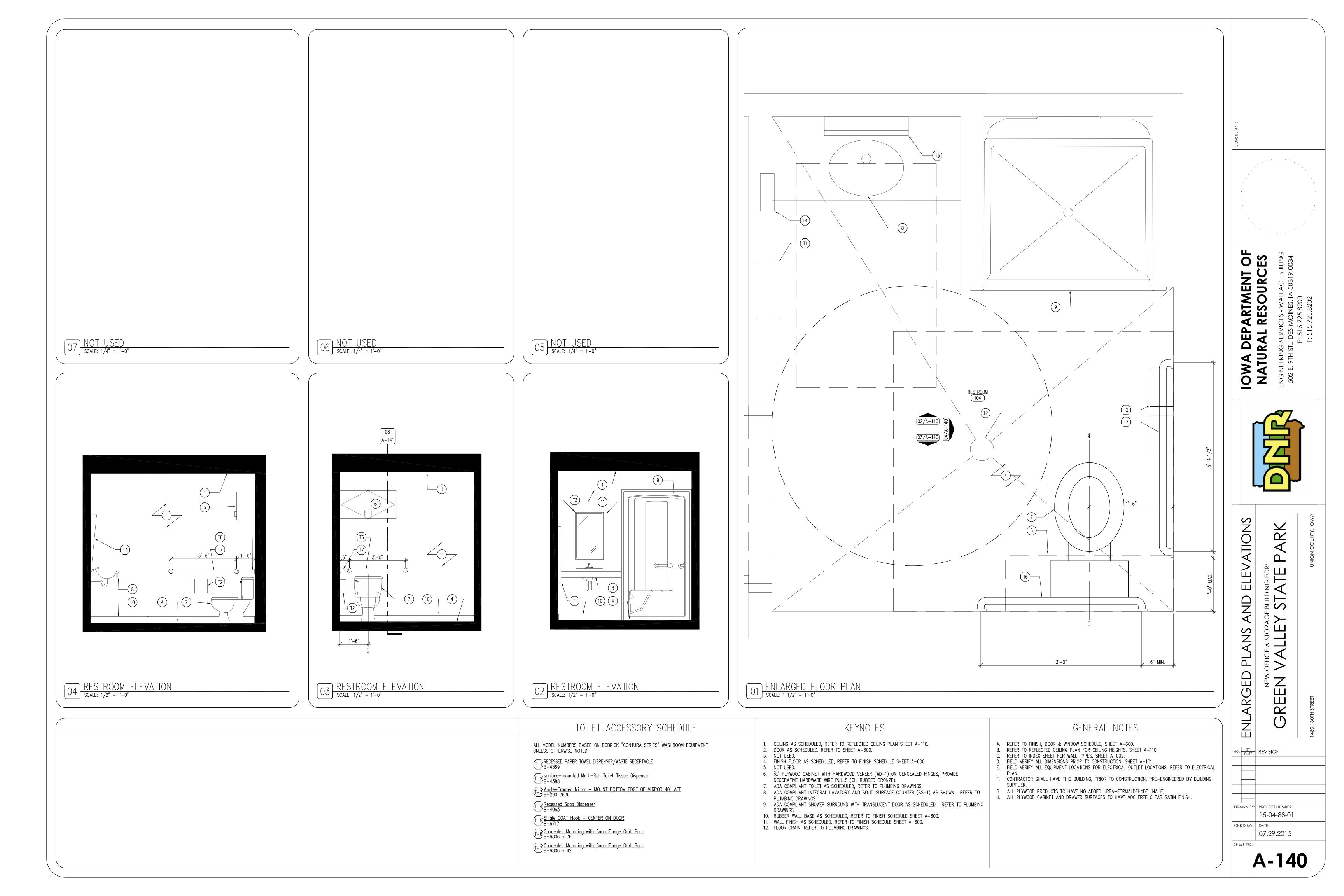
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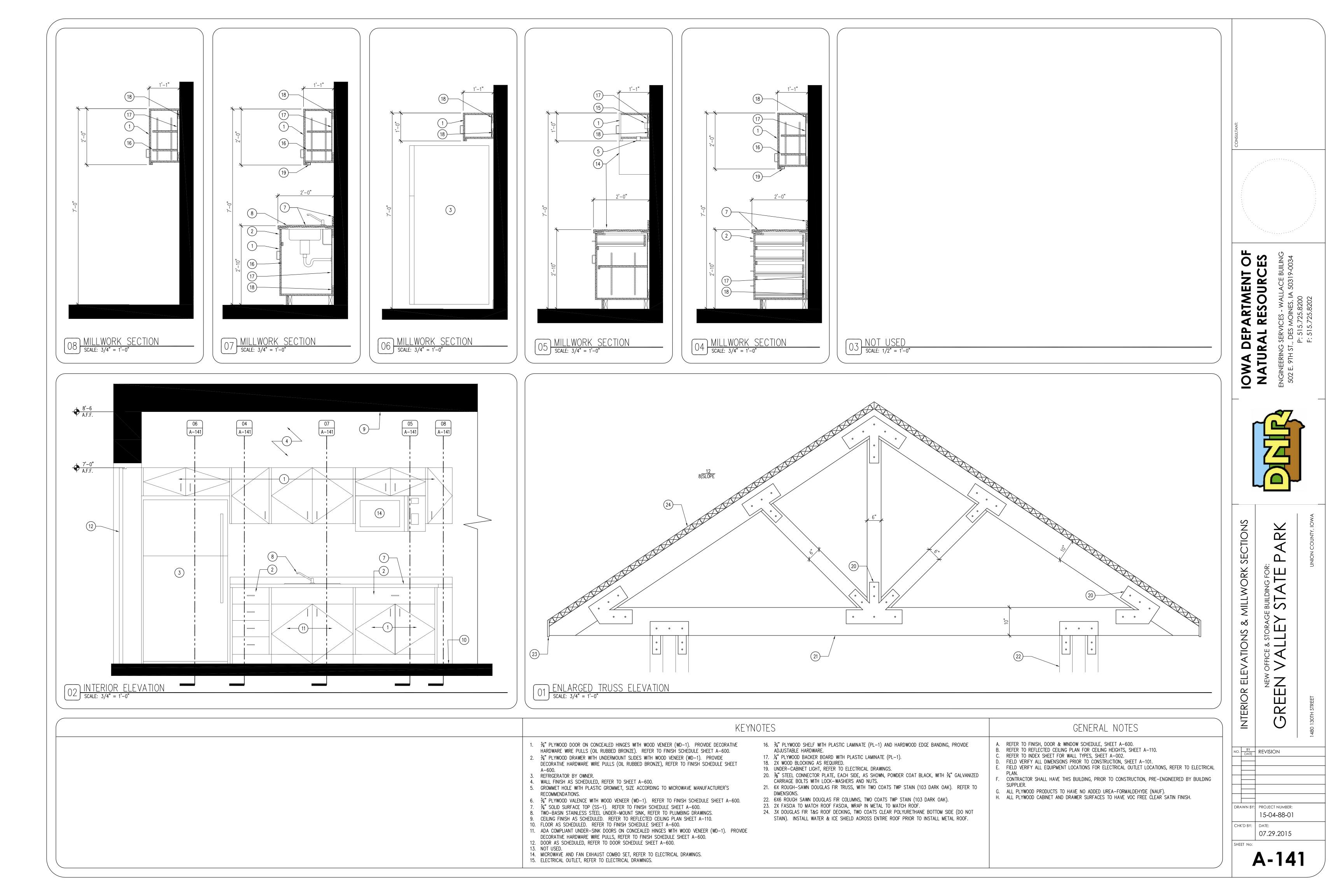
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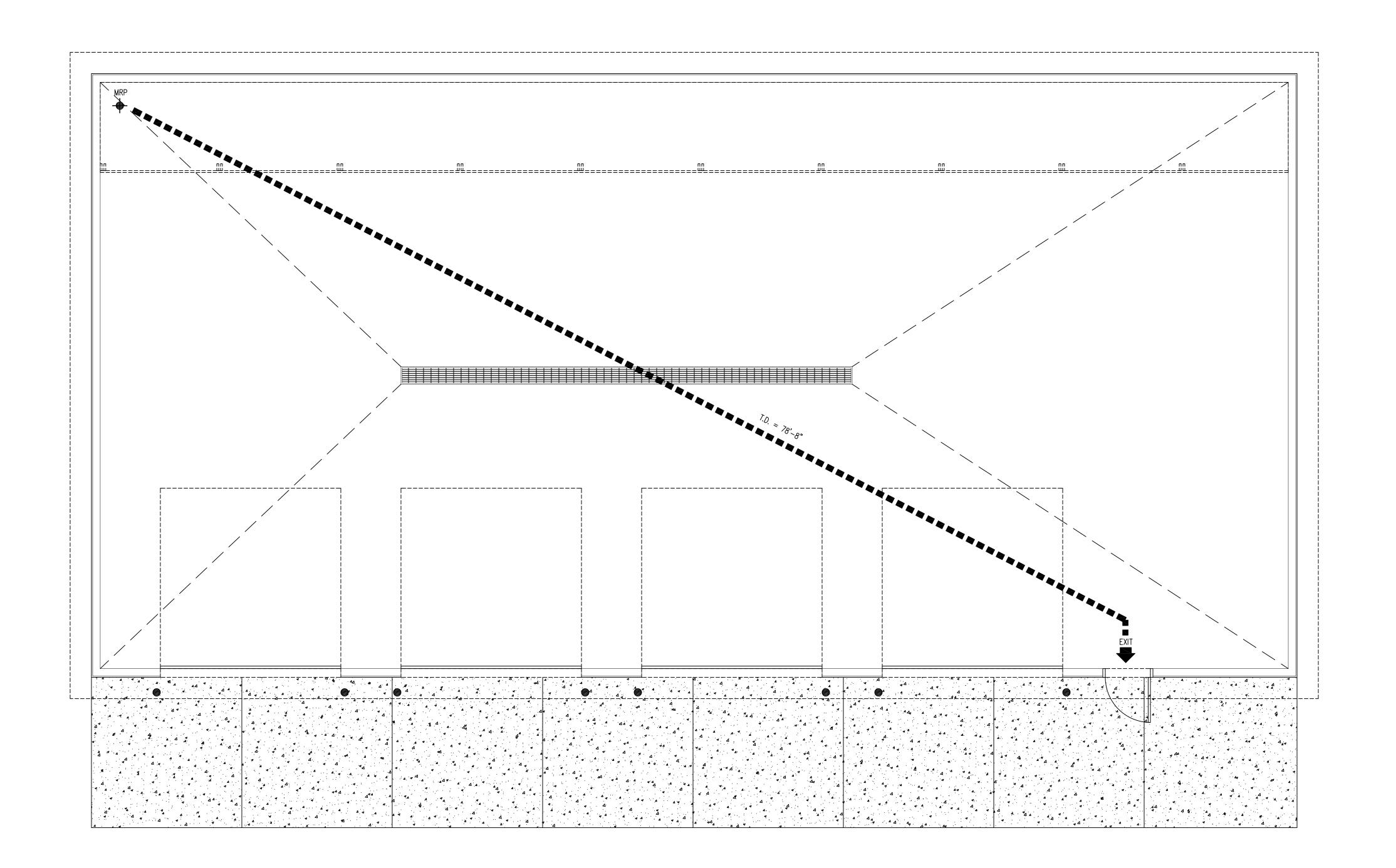
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CHK'D BY: DATE: 07.29.2015









O1 LIFE SAFETY PLAN
SCALE: 1/4" = 1'-0"

		CODE SUMMARY				LIFE SAFE	TY LEGEND	GENERAL NOTES
BUILDING AREA	3,200 GSF		REQUIRED	PROVIDED	SYMBOL	DESCRIPTION	LINE TYPE	
TENANT AREA	3,073 NSF	ALLOWABLE BLDG AREA	17,500 SF	3,200 SF	D.E.	EXIT TO EXIT IN LINEAR FEET		A. INFORMATION PROVIDED ON THE LIFE SAFETY PLAN INDICATES EGRESS REQUIREMENTS.
CONSTRUCTION TYPE	V-B WITHOUT SPRINKLER SYSTEM	(IBC TBL 503)			T.D.	TRAVEL DISTANCE FROM M.R.P.		B. ALL CODE REFERENCES ARE FROM INTERNATIONAL BUILDING CODE, W/ AMENDMENTS UNLESS OTHERWISE NOTED
OCCUPANCY	GROUP S-1 - STORAGE	HEIGHT LIMITATION (IBC	2 STORIES (40')	1 STORIES (20')	D.D.	DIAGONAL DISTANCE		AMERICA GREEGE CHIERWISE HOLES
		TBL 503)						
		AUTOMATIC SPRINKLER SYSTEM (NFPA 13)	NO	NO	⊗	EXIT LIGHT		
					M.R.P.	MOST REMOTE POINT	+	
		EXIT ACCESS TRAVEL DISTANCE (IBC 1016.1)	200'-0"	78'-8"		EXIT / ENTRY		
		EXIT ACCESS DOORWAYS (IBC TBL 1019.1)	1	1	- FEC -	FIRE EXTINGUISHER		
		EGRESS WIDTH PER OCCUPANT (IBC TBL 1005.1) LEVEL [ .2"]	(.2") X 13 = 2.6"	2 DOORS @ 36"= 72"				



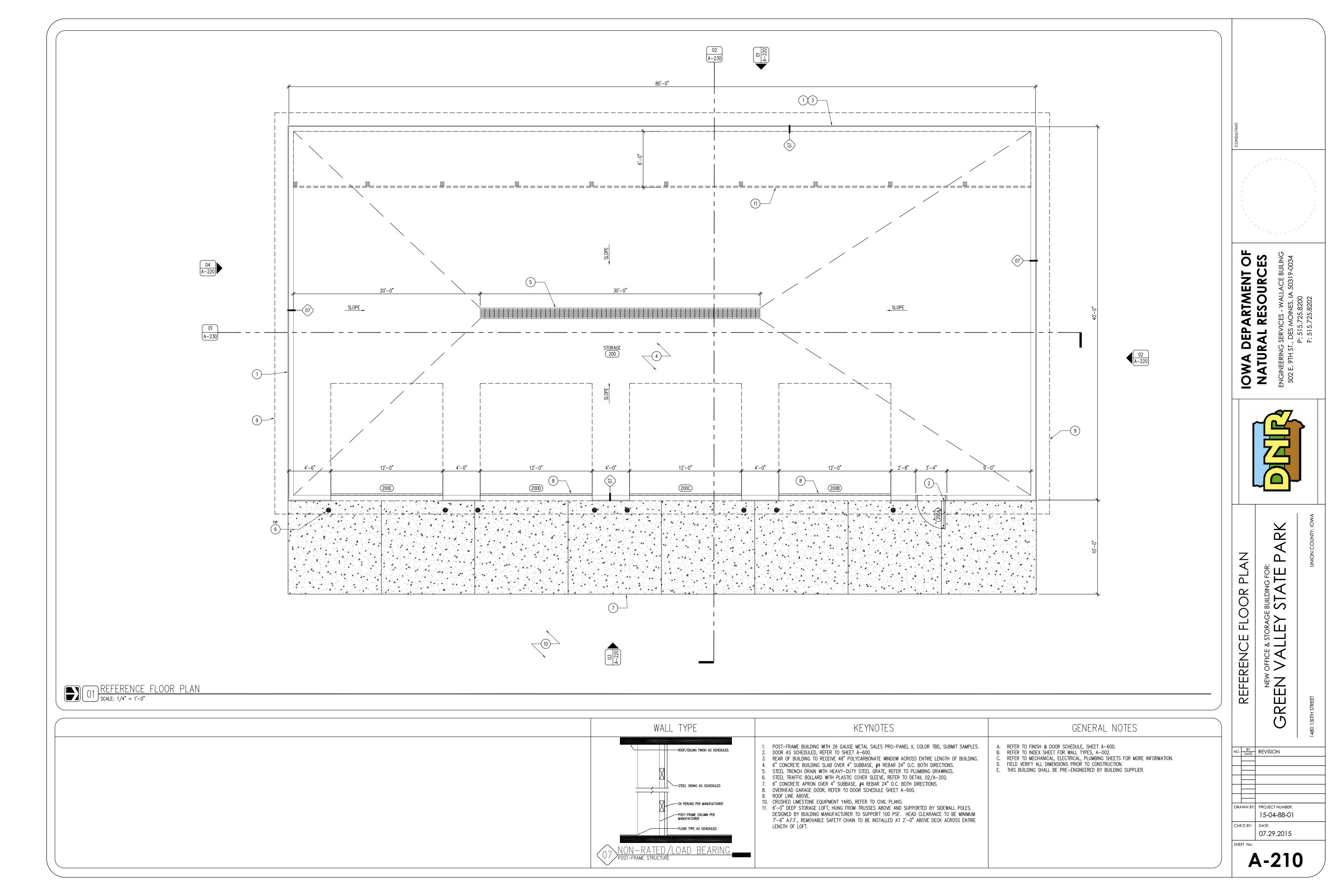
ARK STATE SAFETY 

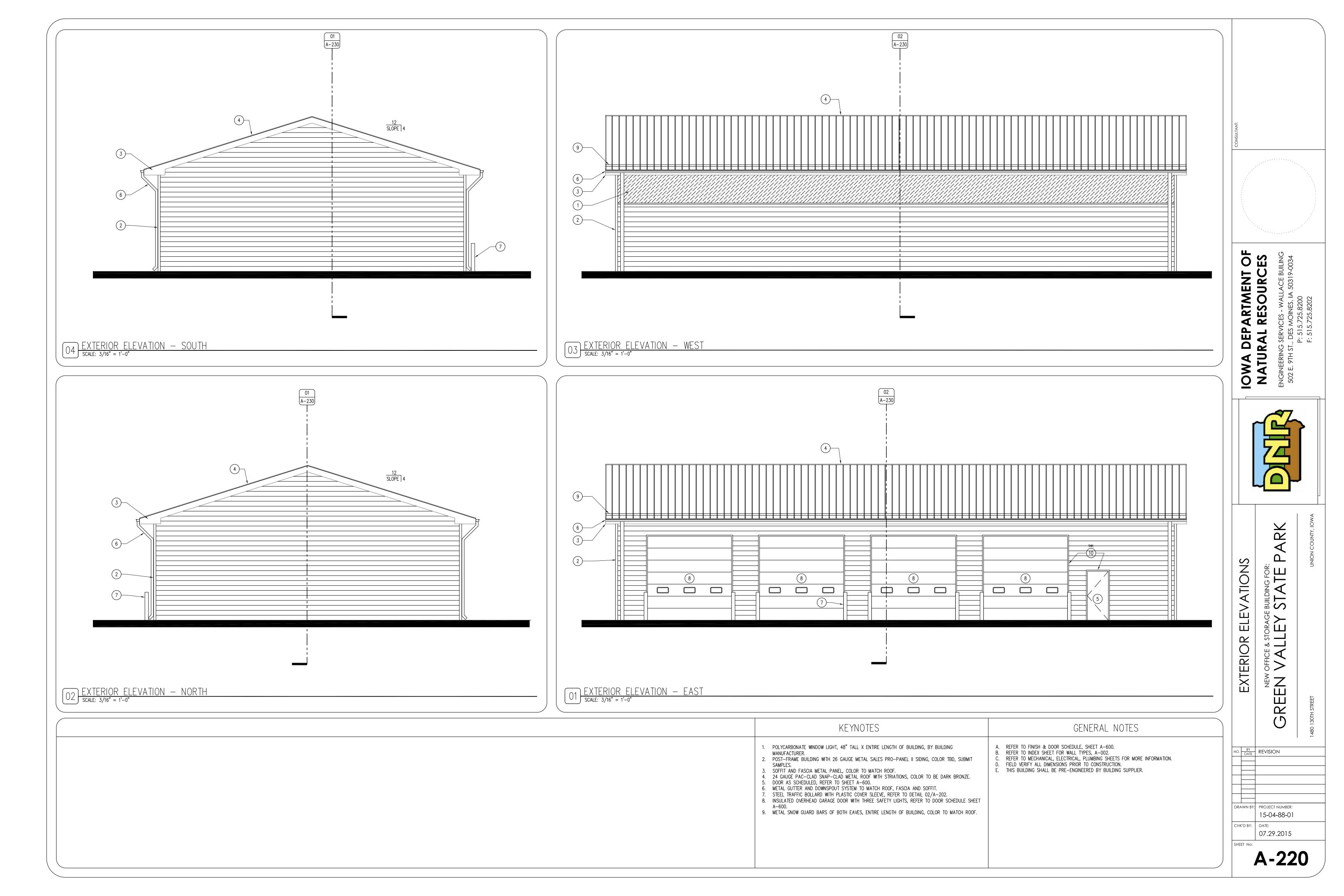
VALLEY ( GREEN

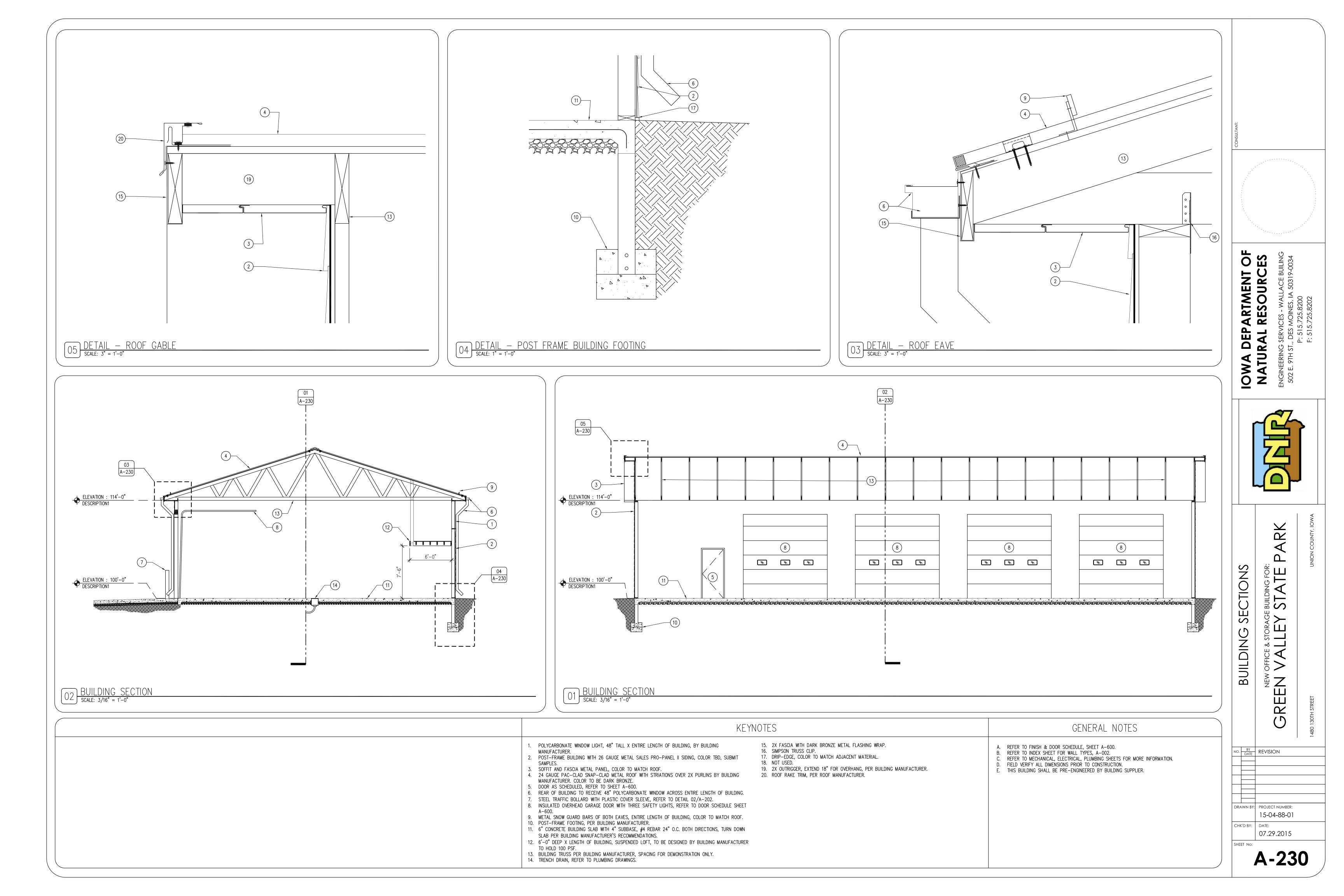
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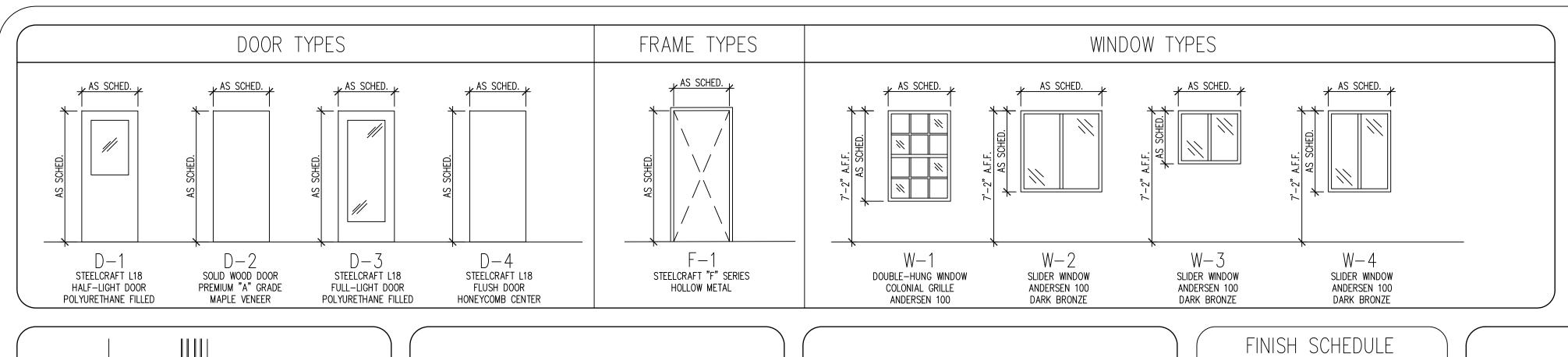
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SHEET No: A-202

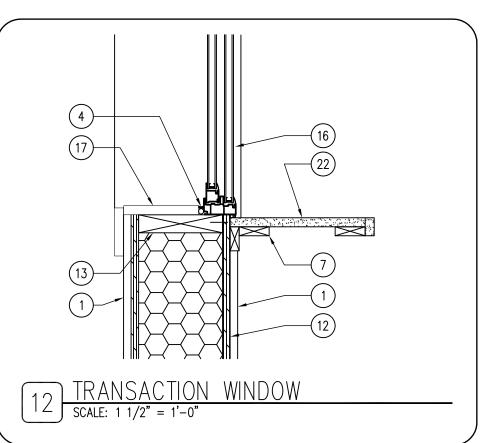


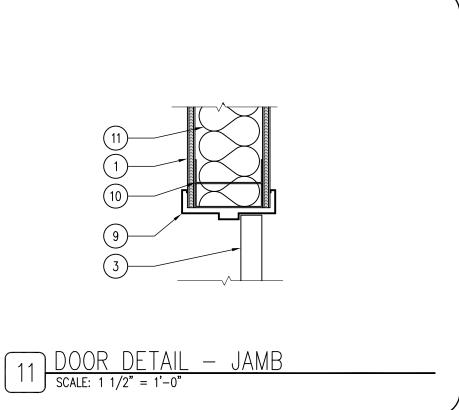


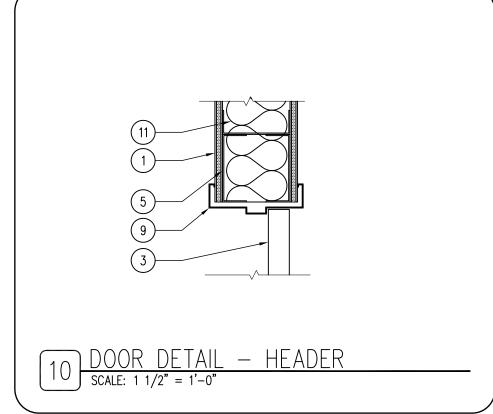




	FINISH SCHEDULE													
ROOM #	ROOM NAME	FLOORING	BASE	NORTH WALL FINISH	EAST WALL FINISH	SOUTH WALL FINISH	WEST WALL FINISH	CEILING	NOTES					
100	VESTIBULE	CONC-2	WB-1	PNT-1	PNT-1	PNT-1	PNT-2	GYP-1	-					
101	OPEN OFFICE	CPT-1	WB-1	PNT-1	PNT-1	PNT-1	PNT-2	ACT-1	-					
102	CORRIDOR	CONC-2	WB-1	PNT-1	PNT-1	PNT-1	PNT-2	ACT-1	-					
104	RESTROOM	CONC-2	RB-1	PNT-1	PNT-1	PNT-1	PNT-2	GYP-1	-					
105	CLOSET	CONC-2	WB-1	PNT-1	PNT-1	PNT-1	PNT-1	GYP-1	-					
106	MEETING ROOM	CONC-2	WB-1	PNT-1	PNT-1	PNT-1	PNT-2	ACT-1	-					
107	MECHANICAL	CONC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	OPEN	-					
108	HEATED BAYS	CONC-1	_	ST-1	ST-1	ST-1	ST-1	ST-1	29 GAUGE STEEL LINER PANEL WALLS & C					
200	STORAGE	CONC-1	_	_	_	_	_	OPEN	-					







HARDWARE SET NO. 1 - DOORS: 100A

1 EA. ADA THRESHOLD PLATE

HARDWARE SET NO. 2 - DOORS: 104

1 EA. STORE LOCKSET ND60PD (ATHENS)

3 EA. PERIMETER SEALS BLACK GASKET 1 EA. THRESHOLD SEAL BLACK BROOM TYPE

1 EA. PRIVACY LOCKSET ND40S (ATHENS)

1 EA. STOREROOM LOCKSET ND80PD (ATHENS)

<u>HARDWARE SET NO. 5</u> – DOORS: 100B, 101, 106, 108A,

1 EA. ENTRANCE LOCKSET ND50PD (ATHENS)

3 EA. PERIMETER SEALS BLACK GASKET 1 EA. THRESHOLD SEAL BLACK BROOM TYPE

<u>HARDWARE SET NO. 3</u> - DOORS: 107, 105

1 EA. FLOOR STOP FS444

HARDWARE SET NO. 4 - DOORS: 102

SR66 (BLACK)

KEYNOTES

| CB-1 |

11. SOUND BATT INSULATION.

15. BOX STUD HEADER.

12'-0" | - | - | MANUF. | MANUF.

16. WINDOW AS SCHEDULED.

12. SIP WALL SYSTEM AS SCHEDULED.

13. 2X, PER MANUF. RECOMMENDATION.

17. HARD MAPLE TRIM / SILL, WD-1.

18. CEMENT BOARD SIDING, AS SCHEDULED.

19. CEMENT BOARD TRIM, AS SCHEDULED.

14. SIP HEADER, PER MANUF. RECOMMENDATION.

CEMENT BOARD SIDING

STEEL SIDING

LCN 4111

3 EA. HINGES

1 EA. CLOSER

3 EA. HINGES

1 EA. FLOOR STOP

3 EA. SILENCERS

3 EA. HINGES

3 EA. SILENCERS

3 EA. HINGES

1 EA. PASSAGE

3 EA. SILENCERS

3 EA. HINGES

1 EA. CLOSER

REWALL BOARD.

3. DOOR AS SCHEDULED.

5. MTL. BOX STUD HEADER

1 EA. FLOOR STOP

1 EA. ADA THRESHOLD PLATE

2. 6" STRUCTURAL METAL STUD.

6. ADA COMPLIANT, THRESHOLD.

9. DOOR FRAME AS SCHEDULED.

7. WOOD BLOCKING AS REQUIRED.

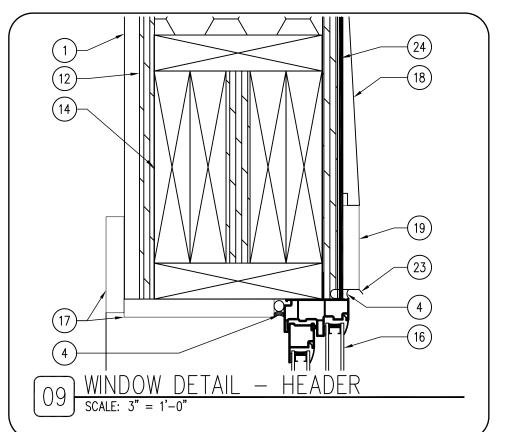
8. R-15 MINIMUM BATT INSULATION.

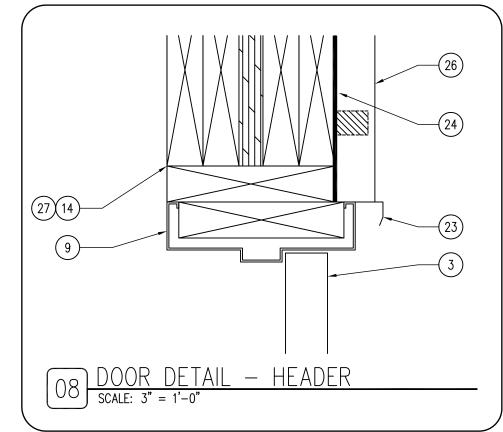
200E 12'-0"

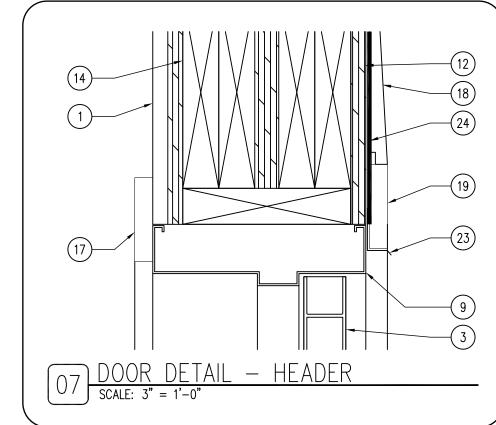
4. CONTINOUS SEALANT AND BACKER ROD

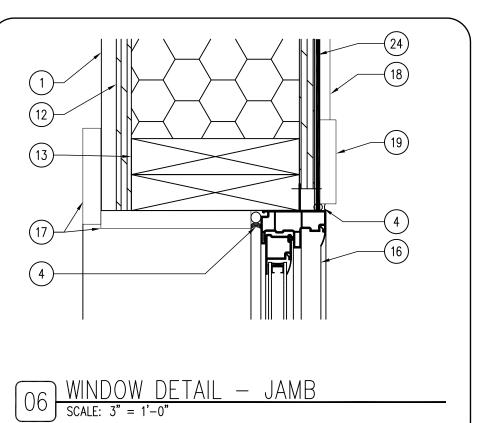
1 EA. FLOOR STOP

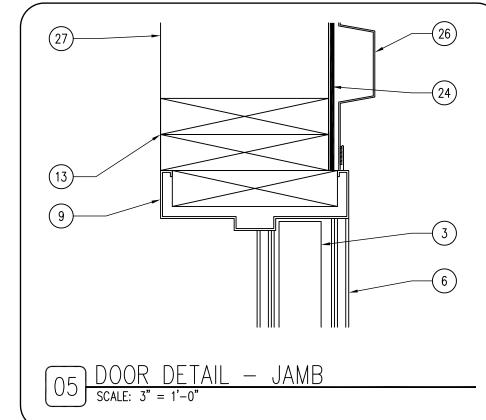
1 EA. FLOOR STOP

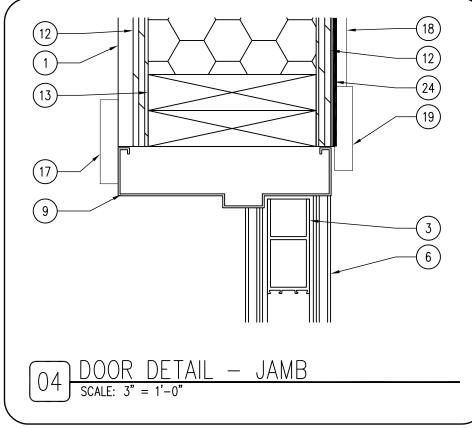


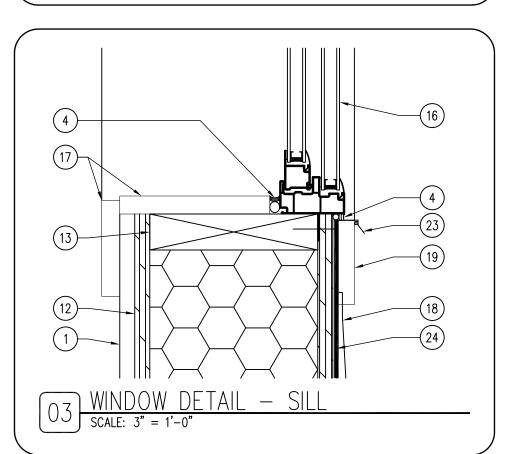


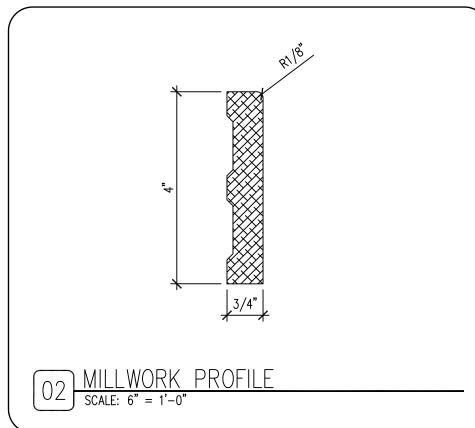


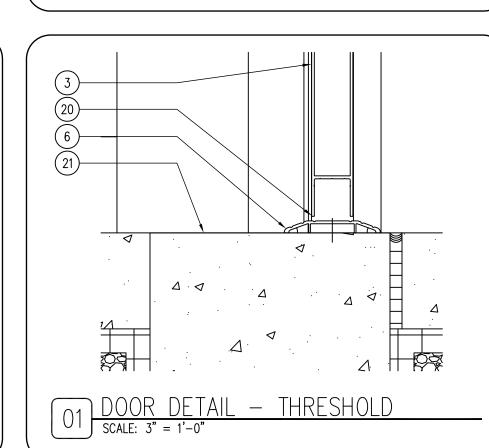












			FINISH SCHE	EDULE			
		MANUFACTURER INFO					
FINISH MARK	MATERIAL	COMPANY NAME	PRODUCT NUMBER	DIMENSION	COLOR	FINISH	COMMENTS
FLOOR	FINISH				!	ļ.	
CONC-1	SEALED CONCRETE	-	-	_	_	_	_
CONC-2	STAIN, SEAL & WAXED CONCRETE	SCOFIELD	LITHOCHROME CHEMSTAIN	-	DARK WALNUT CS-14	HIGH GLOSS	2X WAXED
CPT-1	NYLON CARPET TILE	SHAW	59523-23750	2'X2'	DRIFTWOOD	REED	GRAPHIC NATURE COLLECTION
RB-1	RUBBER BASE	JOHNSONITE	-	4"	TBD	-	GARAGE, MECH. & BATHROOM AR
WB-1	HARD MAPLE BASE	-	-	4"	CLEAR	POLY	_
CEILING	FINISH		<u> </u>		•	•	
ACT-1	ACOUSTICAL CLG TILE	ARMSTRONG	1911 TEGULAR	24"X 24"	WHITE	ULTIMA	PRELUDE XL 15/16" SUSP. SYST
GYP-1	GYPSUM CEILING	-	-	-	WHITE	PNT-1	-
ST-1	STEEL LINER PANEL	-	-	29 GAUGE	WHITE	MANUF.	STORM PANEL
INTERIO	OR FINISH						
PNT-1	INTERIOR PAINT	SHERWIN WILLIAMS	DURATION	_	SW6106 - KILIM BEIGE	PEARL	COMMON
PNT-2	INTERIOR PAINT	SHERWIN WILLIAMS	DURATION	_	SW6108 - LATTE	PEARL	ACCENT
RW-1	ESSENTIAL BOARD	REWALL	-	1/2"	-	ORANGE PEEL	FINISH WITH HEAVY ORANGE PE
ST-1	STEEL LINER PANEL	-	-	29 GAUGE	WHITE	MANUF.	HEATED BAYS
MILLWO	RK / WOOD FINISH						
WD-1	MAPLE VENEER PLYWOOD	-	_	-	TBD	CLEAR	ALL WOOD/MILLWORK - SUBMIT SAMP
WD-2	3/4" SOLID HARD MAPLE	-	-	3/4" X 4"	CLEAR	CLEAR	ALL WOOD/MILLWORK - SUBMIT SAMP
SS-1	CORIAN	DUPONT	-	-	LAVA ROCK	MANUF.	ALL WOOD/MILLWORK - SUBMIT SAMP
PL-1	PLASTIC LAMINATE	-	-	_	TBD	MANUF.	ALL WOOD/MILLWORK - SUBMIT SAMP
EXTERI	OR FINISH						
SR-1	STANDING SEAM METAL ROOF	PAC-CLAD	SNAP-LOC	24 GA	DARK BRONZE	MANUF.	_

CEDARMILL COLORPLUS

PRO-PANEL II

8.25"

26 GA.

MANUF.

MANUF.

UNLESS NOTED OTHERWISE.

SUBMIT SAMPLES

GENERAL NOTES

A. WOOD DOORS TO BE CUSTOM GRADE "A" MAPLE WOOD

C. HARDWARE FINISH TO BE: "OIL RUBBED BRONZE (613)",

R-6 GARAGE DOORS W/ SAFETY WINDOWS

VENEER SOLID CORE. FINISH TO BE APPROVEDB. ALL

HARDWARE MODEL NUMBERS BASED ON SCHLAGE

"ND-SERIES" LOCKSETS AND "IVES" HARDWARE.

D. WINDOW BASIS OF DESIGN, ANDERSEN 100 SERIES.

E. CHECK ALL QUANTITIES, DIMENSIONS AND FINISHES

REFER TO MANUFACTURER'S INSTRUCTIONS.

TIMBER BARK

TBD

0. 3 5/8" M	ETAL. STUD.	.U.				SKET FOR EXTERIC		201-LKAME BUILDING E	MANUFACTURER.					BEFORE OR	DERING.	
								DOOR SC	HEDULE							
		[	DOOR						FRAME							
DOOR		DIMENSION						DETAILS					FIRE RATING		HARDWARE	COMMENTS
NUMBER	WIDTH	HEIGHT	THICK.	TYPE	GLASS	FINISH	HEAD	JAMB	THRESHOLD	TYPE	FINISH	LABEL	SET #	KEYSIDE ROOM NUMBER		
100A	3'-0"	7'-0"	1 3/4"	D-3	MANUF.	MANUF.	07/A-600	04/A-600	01/A-600	F-1	MANUF.		1	NA	EXT. STEELCRAFT "L" SERIES - FULL LIGH	
100B	3'-0"	7'-0"	1 3/4"	D-3	MANUF.	MANUF.	07/A-600	04/A-600	01/A-600	F-1	MANUF.		5	100	EXT. STEELCRAFT "L" SERIES - FULL LIGHT	
101	3'-0"	7'-0"	1 3/4"	D-2	MANUF.	CLEAR	10/A-600	11/A-600	-	F-1	MANUF.		5	102	PREMIUM GRADE "A" MAPLE	
102	3'-0"	7'-0"	1 3/4"	D-1	MANUF.	MANUF.	07/A-600	04/A-600	01/A-600	F-1	MANUF.		4	NA	EXT. STEELCRAFT "L" SERIES - HALF LIGHT	
104	3'-0"	7'-0"	1 3/4"	D-2	MANUF.	CLEAR	10/A-600	11/A-600	-	F-1	MANUF.		2	102	PREMIUM GRADE "A" MAPLE	
105	10'-0"	7'-0"	1 3/4"	D-2	MANUF.	CLEAR	-	-	-	F-1	MANUF.		3	106	PREMIUM GRADE "A" MAPLE	
106	3'-0"	7'-0"	1 3/4"	D-1	MANUF.	CLEAR	10/A-600	11/A-600	-	F-1	MANUF.		5	NA	EXT. STEELCRAFT "L" SERIES - HALF LIGHT	
107	3'-0"	7'-0"	1 3/4"	D-2	MANUF.	MANUF.	07/A-600	04/A-600	01/A-600	F-1	MANUF.		3	106	PREMIUM GRADE "A" MAPLE	
108A	3'-0"	7'-0"	1 3/4"	D-1	MANUF.	MANUF.	07/A-600	04/A-600	01/A-600	F-1	MANUF.		5	NA	EXT. STEELCRAFT "L" SERIES - HALF LIGHT	
108B	12'-0"	12'-0"	_	_	MANUF.	MANUF.	_	-	_	_	_		_	-	R-6 GARAGE DOORS W/ SAFETY WINDOWS	
108C	12'-0"	12'-0"	_	_	MANUF.	MANUF.	_	-	-	-	-		-	-	R-6 GARAGE DOORS W/ SAFETY WINDOWS	
108D	12'-0"	12'-0"	-	-	MANUF.	MANUF.	_	-	-	-	-		-	-	R-6 GARAGE DOORS W/ SAFETY WINDOWS	
200A	3'-0"	7'-0"	1 3/4"	D-4	MANUF.	MANUF.	08/A-600	05/A-600	SIM 01/A-600	F-1	MANUF.		5	NA	EXT. STEELCRAFT "L" SERIES - FLUSH DOOF	
200B	12'-0"	12'-0"	_	-	MANUF.	MANUF.	_	-	-	-	-		-	-	R-6 GARAGE DOORS W/ SAFETY WINDOWS	
200C	12'-0"	12'-0"	-	_	MANUF.	MANUF.	_	-	-	-	_		-	-	R-6 GARAGE DOORS W/ SAFETY WINDOWS	
200D	12'-0"	12'-0"	-	-	MANUF.	MANUF.	-	-	-	_	-		-	-	R-6 GARAGE DOORS W/ SAFETY WINDOWS	
		1	1		1 1		1	1	1	1 1		1	1	1	†	

JAMES HARDIE

METAL SALES MANUFACTURING CO.

22. QUARTZ COUNTER TOP, QZ-1, ANGLE

25. WATER RESISTANT PLYWOOD SHEATHING.

27. POST-FRAME BUILDING BY MANUFACTURER.

23. METAL FLASHING W/ SEALANT, AS

24. CONTINUOUS VAPOR BARRIER.

26. STEEL SIDING AS SCHEDULED.

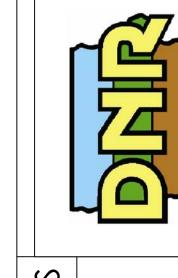
21. CONCRETE SLAB.

REQUIRED.

BRACE AS REQUIRED.

	WINDOW SCHEDULE												
	WINDOW FRAME												
WINDOW	DIME	ISION	TVDE	01.400	FINICIT		DETAILS		TVDE	FINICIT	QUANTITY	COMMENTS	
TYPE	WIDTH	HEIGHT	TYPE	GLASS	FINISH	HEAD	JAMB	SILL	TYPE	FINISH			
W-1	36"	54"	1	MANUF.	MANUF.	09/A-600	06/A-600	03/A-600	_	DARK BRONZE	2	ANDERSEN 100 - DOUBLE HUNG WITH COLONIAL GRILLE	
W-2	48"	48"	1	MANUF.	MANUF.	09/A-600	06/A-600	12/A-600	_	DARK BRONZE	1	ANDERSEN 100 - SLIDER WINDOWS	
W-3	36"	30"	1	MANUF.	MANUF.	09/A-600	06/A-600	03/A-600	_	DARK BRONZE	7	ANDERSEN 100 - SLIDER WINDOWS	
W-4	36"	48"	1	MANUF.	MANUF.	09/A-600	06/A-600	03/A-600	_	DARK BRONZE	6	ANDERSEN 100 - SLIDER WINDOWS	





HEDULI G FOR BUILDING βЩ

SC WINDOW Ш

FINISH, NO. BY REVISION DRAWN BY: PROJECT NUMBER:

15-04-88-01 CHK'D BY: DATE: 07.29.2015

SHEET No: A-600

# MECHANICAL SYMBOLS

cw	COLD WATER
———нw———	HOT WATER SUPPLY
	RECIRCULATING HOT WATER
ss	SOIL, WASTE, OR SANITARY SEWER BELOW FLOOR OR GRADE
D	DRAIN
CD	CONDENSATE DRAIN ABOVE FLOOR OR GRADE
	VENT ABOVE FLOOR OR GRADE
	REFRIGERANT LINE
	LOW TEMPERATURE HOT WATER SUPPLY
	LOW TEMPERATURE HOT WATER RETURN
<b>®</b> 3″FD−1	FLOOR DRAIN - TYPE AND SIZE AS NOTED
<b>(+</b> +HB−1	HOSE BIBB - TYPE AS NOTED
•	LOCATION OF THERMOSTAT/ROOM TEMPERATURE SENSOR +48" OR AS NOTED
⊠ 0	EXHAUST DUCT UP
<b>国 0</b>	EXHAUST DUCT DOWN
	RECTANGULAR TO ROUND DUCT TRANSITION
	90 DEGREE MITERED ELBOW
<b>□</b>	90 DEGREE MITERED ELBOW WITH TURNING VANES
	90 DEGREE RADIUS ELBOW
	90 DEGREE RADIUS ELBOW WITH TURNING VANES
SSI 1	EQUIPMENT TAG
<b>*</b>	NEW DUCTWORK
3	NOTE REFERENCE

NOTE: NOT ALL SYMBOLS APPLY TO THIS PROJECT.

# UNION AIR VENT — MANUAL AIR VENT — AUTOMATIC THERMOMETER WITH GAGE COCK PRESSURE GAUGE WITH GAGE COCK STRAINER REDUCED PRESSURE BACKFLOW PREVENTER WATER HAMMER ARRESTOR — SIZE AS NOTED CHECK VALVE RISER DOWN (ELBOW) RISER DOWN (TEE) RISER UP (ELBOW) NEW PIPING SHUT OFF VALVE (BALL, BUTTERFLY, ETC. REFER TO SPECS)

NOTE: NOT ALL SYMBOLS APPLY TO THIS PROJECT.

#### MECHANICAL GENERAL NOTES HVAC

COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH—IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

INCORPORATE INTO INSTALLATION MECHANICAL SPECIFICATIONS, DRAWINGS, STATE AND LOCAL CODES, AND OTHER APPLICABLE REQUIREMENTS.

ON COMPLETION OF THE INSTALLATION, MECHANICAL CONTRACTOR SHALL COOPERATE WITH THE OWNER TO PROVIDE ANY NECESSARY ADJUSTING AND BALANCING TO OBTAIN PROPER OPERATION OF ALL EQUIPMENT AND SYSTEMS. CONTRACTOR SHALL PROVIDE ALL FACILITIES AND EQUIPMENT, AND MAKE ALL TESTS, REQUIRED FOR ADJUSTMENTS AND BALANCING TO ESTABLISH THE PROPER PERFORMANCE OF ANY PIECE OF EQUIPMENT.

PIPING SHALL NOT BLOCK CLEARANCES TO MECHANICAL EQUIPMENT. INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING PIPING IF ACCESS CLEARANCES ARE OBSTRUCTED.

#### HVAC GENERAL NOTES

MECHANICAL CONTRACTOR TO PROVIDE A COMPLETE HVAC SYSTEM, INCLUDING DUCTWORK, MECHANICAL EQUIPMENT, SUPPORTS, HANGERS AND ALL APPURTENANCES. INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. INSTALL SYSTEM TO MEET ALL CITY AND STATE CODES AND REQUIREMENTS.

DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF DUCT SYSTEM. INDICATED DUCT LOCATIONS, CONFIGURATIONS, AND ARRANGEMENTS WERE USED TO SIZE DUCTS AND CALCULATE FRICTION LOSS FOR AIR—HANDLING EQUIPMENT SIZING AND FOR OTHER DESIGN CONSIDERATIONS.

ALL DUCT DIMENSIONS LISTED ARE INTERIOR FREE AREA DUCT DIMENSIONS AND DO NOT INCLUDE INSULATION REQUIREMENTS. CONTRACTOR MUST INCREASE DUCT SIZES ACCORDINGLY TO ACCOMMODATE DUCT LINER.

#### PLUMBING GENERAL NOTES

MECHANICAL CONTRACTOR TO PROVIDE A COMPLETE PLUMBING SYSTEM, INCLUDING, PIPE, INSULATION, HANGERS, SUPPORTS, EQUIPMENT, FIXTURES, MIXING VALVES, VALVES, AND ALL APPURTENANCES. INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. SIZE AND INSTALL SYSTEM PER PLUMBING CODE. COMPLY WITH ALL LOCAL AND STATE CODES AND REQUIREMENTS.

DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PLUMBING SYSTEM.

# MECHANICAL ABBREVIATIONS

ABSOR	ABSORPTION	EQUIP	EQUIPMENT	LDBT	LEAVING DRY BULB TEMPERATURE
ACU	AIR CONDITIONING UNIT	EST	EXTERNAL STATIC PRESSURE	LWT	LEAVING WATER TEMPERATURE
AD	ACCESS DOOR OR AREA DRAIN	EWBT	ENTERING WET BULB TEMPERATURE	LWBT	LEAVING WET BULB TEMPERATURE
AFF	ABOVE FINISHED FLOOR	EWC	ELECTRIC WATER COOLER	MB	MOP BASIN
AFG	ABOVE FINISHED GRADE	EWT	ENTERING WATER TEMPERATURE	MBH	1000 BTUH
AHU	AIR HANDLING UNIT	EX	EXISTING	MC	MECHANICAL CONTRACTOR
AV	AIR VENT	EXH	EXHAUST	MECH	MECHANICAL
BOT	ВОТТОМ	EXP	EXPANSION	MH	MANHOLE
BTU	BRITISH THERMAL UNIT	FAI	FRESH AIR INTAKE	NTS	NOT TO SCALE
BTUH	BTU PER HOUR	FCU	FAN COIL UNIT	OA	OUTSIDE AIR
CA	COMPRESSED AIR	FD	FLOOR DRAIN	OD	OVERFLOW ROOF DRAIN
CB	CATCH BASIN	FLEX	FLEXIBLE	PSI	POUNDS PER SQUARE INCH
CENT	CENTRIFUGAL	FLR	FLOOR	PRV	POWER ROOF VENTILATOR
CFM	CUBIC FEET PER MINUTE	FPM	FEET PER MINUTE	PRV	PRESSURE REDUCING VALVE
CI	CAST IRON	FPS	FEET PER SECOND	PV	PRESSURE VENT
CL	CENTER LINE	FS	FLOOR SINK	PVC	POLYVINYL CHLORIDE
COND	CONDENSATE	FT	FINTUBE	RA	RETURN AIR
CO	CLEAN OUT	FTG	FOOTING	RD	ROOF DRAIN
CONC	CONCRETE	GA	GAGE	RH	RELATIVE HUMIDITY
CONTR	CONTRACTOR	GAL	GALLON	RTU	ROOF TOP UNIT
CP	CONDENSATE PUMP	GALV	GALVANIZED	RV	RELIEF VALVE
CU	COPPER	GC	GENERAL CONTRACTOR	SK	SINK
CUH	CABINET UNIT HEATER	GPH	GALLONS PER HOUR	SA	SUPPLY AIR
CWP	CIRCULATING WATER PUMP	GPM	GALLONS PER MINUTE	SH	SHOWER
DDC	DIRECT DIGITAL CONTROLS	Н	WALL HYDRANT	SP	STATIC PRESSURE
DN	DOWN	HR	HOUR	TCC	TEMPERATURE CONTROL CONTRACTO
DR	DRAIN	HTG	HEATING	TYP	TYPICAL
DS	DOWNSPOUT	НВ	HOSE BIBB	UC	UNDER CUT DOOR (3/4")
EA	EXHAUST AIR	ISP	INTERNAL STATIC PRESSURE	UH	UNIT HEATER
EAT	ENTERING AIR TEMPERATURE	JR	JANITOR RECEPTOR	UR	URINAL
EC	ELECTRICAL CONTRACTOR	LAV	LAVATORY	UV	UNIT VENTILATOR
EDBT	ENTERING DRY BULB TEMPERATURE			VTR	VENT THROUGH ROOF
EF	EXHAUST FAN			WC	WATER CLOSET
EJ	EXPANSION JOINT			WH	WATER HEATER

NOTE: NOT ALL ABBREVIATIONS APPLY TO THIS PROJECT.

#### MECHANICAL WARRANTY NOTES

MECHANICAL CONTRACTOR SHALL WARRANT ALL EQUIPMENT AND INSTALLATION FOR A MINIMUM OF 1 YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. AIR CONDITIONING REFRIGERATION SYSTEMS SHALL BE WARRANTED FOR A MINIMUM OF 5 YEARS (PARTS ONLY), NON-PRORATED, FROM THE DATE OF SUBSTANTIAL COMPLETION. THE WARRANTY SHALL APPLY TO COMPRESSORS, EVAPORATORS, AND CONDENSER COILS, HIGH AND LOW SIDE PIPING AND PIPING SPECIALTIES WHICH SHALL INCLUDE EXPANSION AND SOLENOID VALVES, RELIEF VALVES, FILTER-DRYER, AND SIGHT GLASSES. PRESSURE GAUGES AND PRESSURE SWITCHES ARE NOT UNDER THE EXTENDED WARRANTY EXCEPT FOR LOSS OF REFRIGERANT AND CONSEQUENTIAL DAMAGE TO THE SYSTEM WHICH WILL BE AN EXTENDED WARRANTY OBLIGATION. ALL DEFECTS THAT BECOME APPARENT WITHIN THE WARRANTY PERIOD SHALL BE REPAIRED BY THE MECHANICAL CONTRACTOR AS DIRECTED BY THE ENGINEER THROUGH THE OWNERS REPRESENTATIVE. WARRANTY WILL NOT OBLIGATE THE MECHANICAL CONTRACTOR TO REPAIR DAMAGE RESULTING FROM ACCIDENT OR IMPROPER OPERATION OF CARE ON THE PART OF THE OWNER AND NOT DUE TO DEFECTIVE MATERIAL. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND OTHER WARRANTY INFORMATION.

KCL Engineering.

218 1/2 5th St.
West Des Moines, Iowa 50265
info@kdengineering.com

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WA 502 E. 9TH ST., DES MOINES, P. 515 725 8200



**NOTES** 

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ZE AT A CO

NEW OFFICE & STORAGE BUILDING FC

N VALLEY STATE

GREEN

BY DATE REVISION

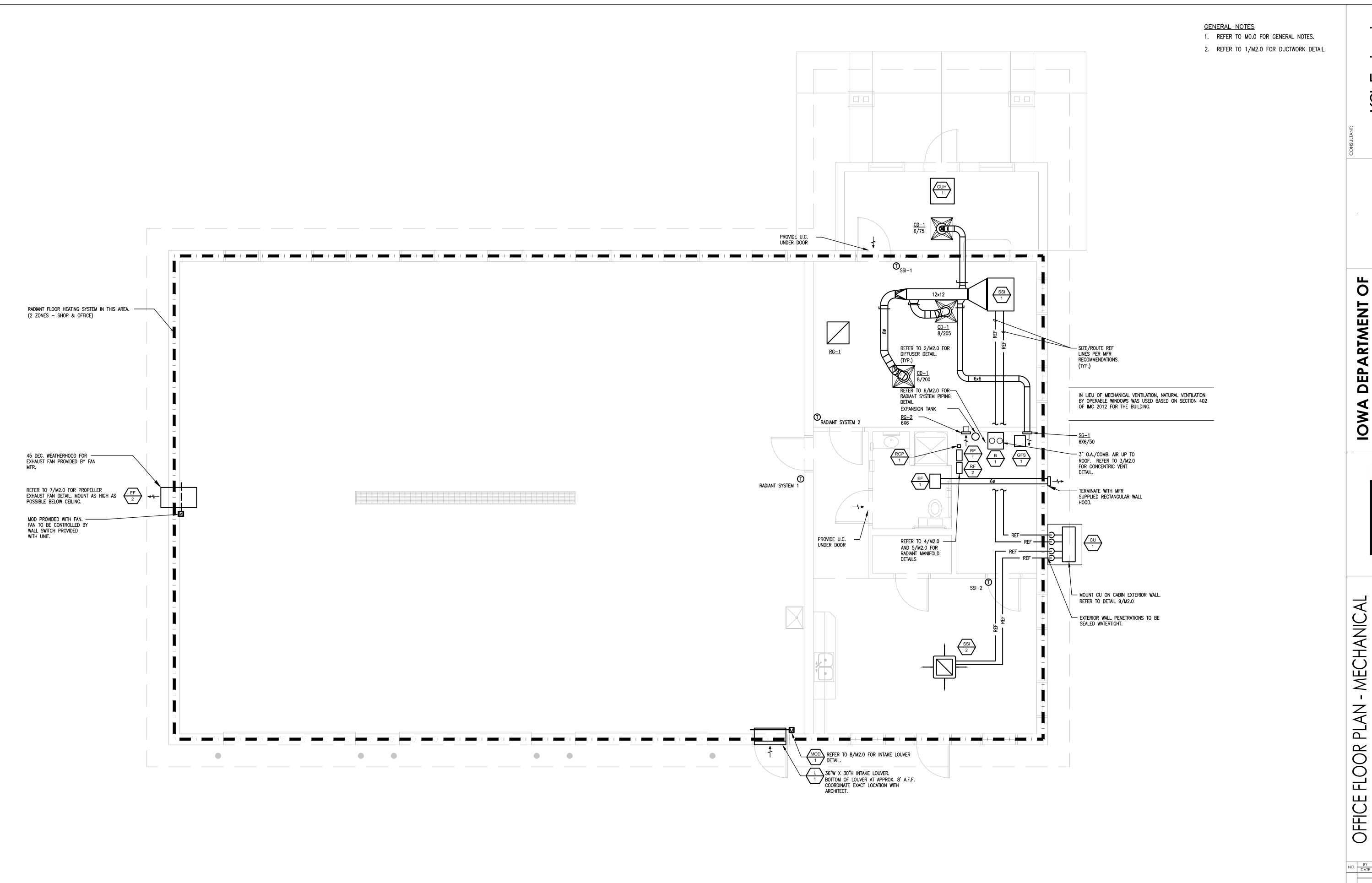
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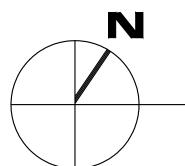
CB 15-04-88-01

CHK'D BY: DATE:

JC 07.29.2015

HEET No:





OFFICE FLOOR PLAN - MECHANICAL

SCALE: 1/4" = 1'-0"

IOWA DEPARTMENT OF NATURAL RESOURCES

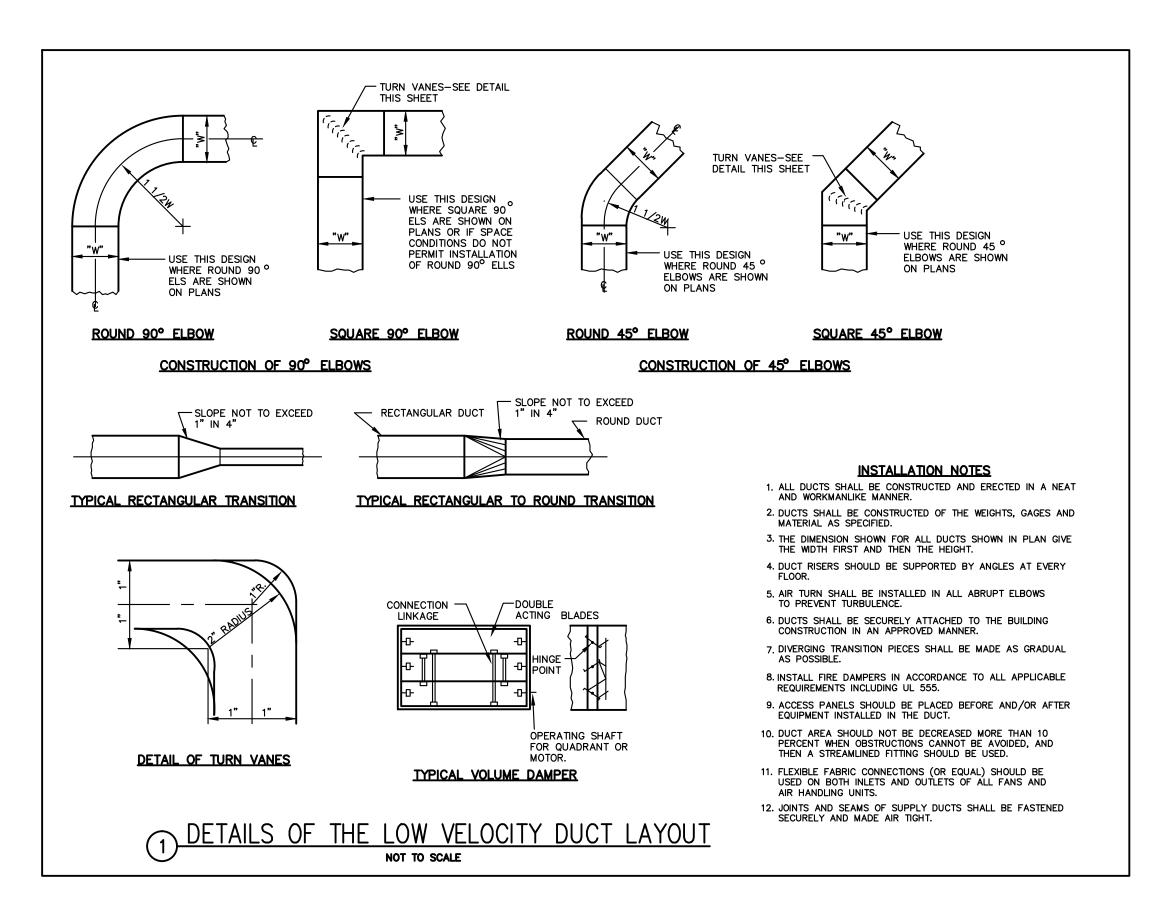
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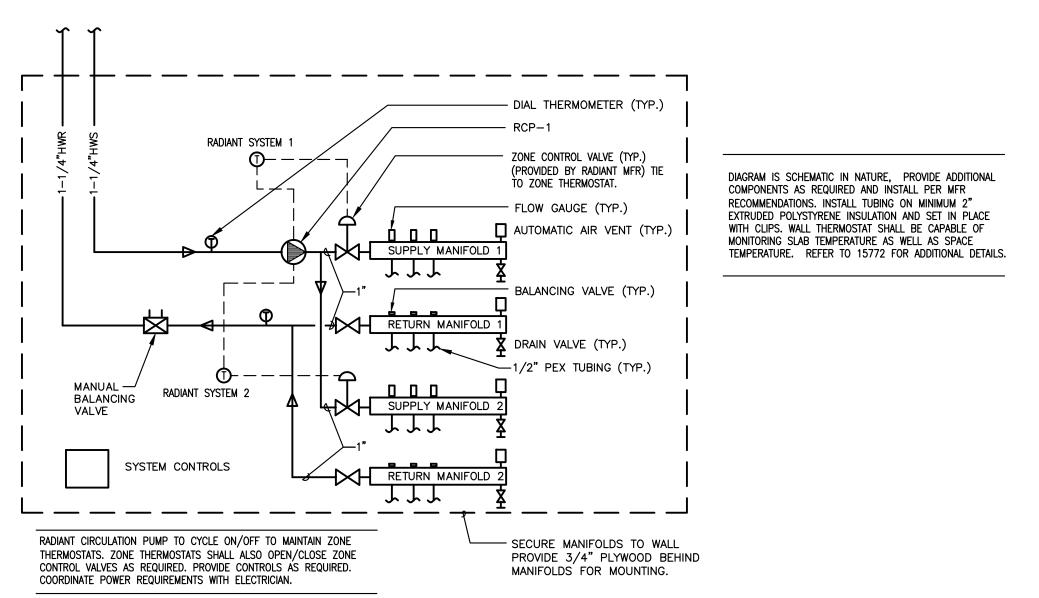
GREEN

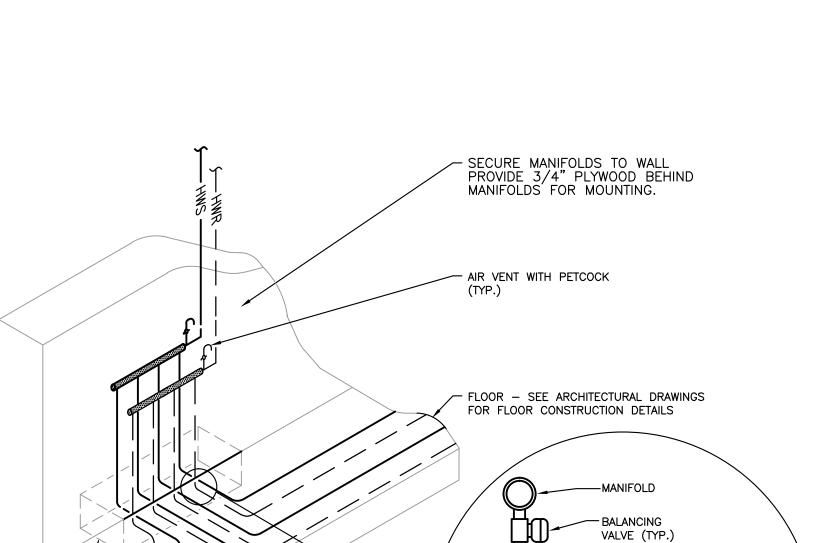
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CB 15-04-88-01 JC 07.29.2015

M1.0







- CEILING DIFFUSER

NOT TO SCALE

SUPPLY DUCT-

DRAW BAND WITH SILICONE SEALER

- RADIANT FLOOR

- GALVANIZED STEEL

6 PIPE DIAMETERS

SUPPORT. R=AT LEAST

90° PIPE BEND

PIPE BEND SUPPORT

COLLAR -

FLEX DUCT MAX. 6'-0"

FLEX DUCT SIZE SHALL

dinning.

MATCH NECK SIZE

CEILING

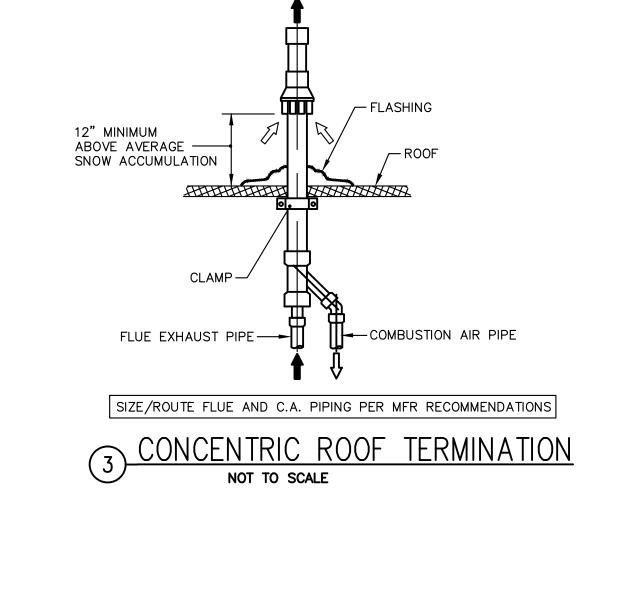
FORM OUT OPENINGS WHERE RADIANT PIPES COME THROUGH FLOOR

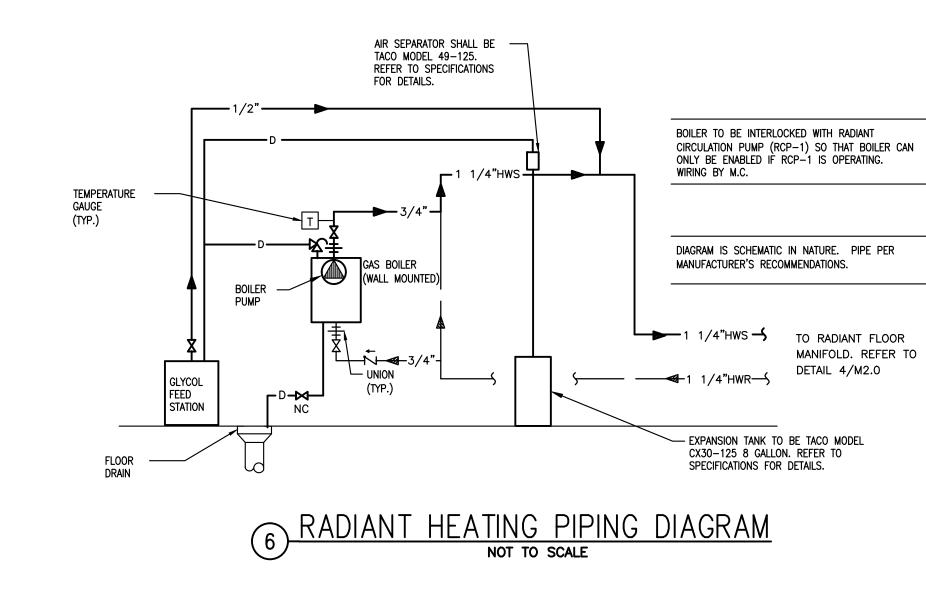
BEFORE POURING CONCRETE. FILL OPENINGS WITH SEALANT AFTER MANIFOLDS ARE IN PLACE

RADIANT FLOOR MANIFOLD

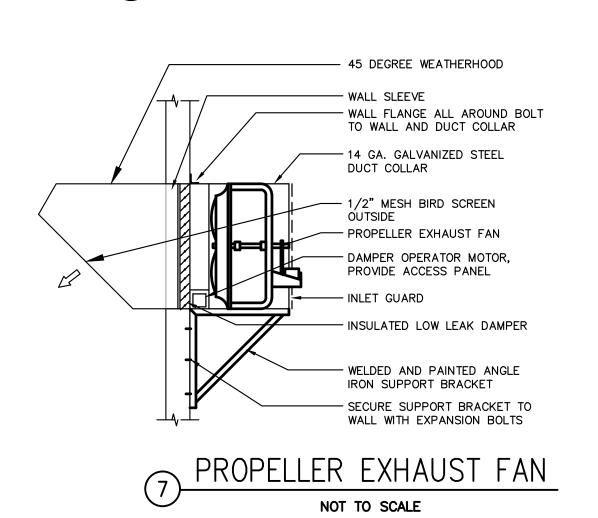
NOT TO SCALE

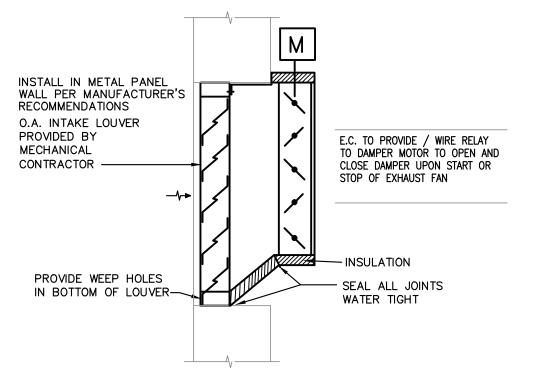
OPPOSED BLADE



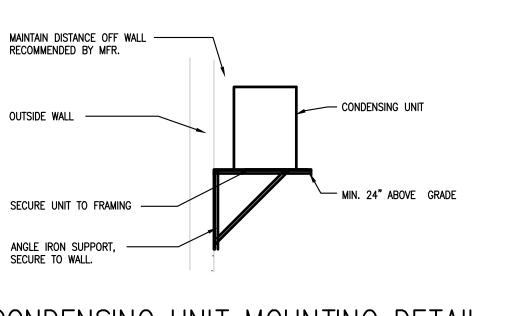


# 4 IN-FLOOR RADIANT MULTI-ZONE SYSTEM DETAIL NOT TO SCALE









CONDENSING UNIT MOUNTING DETAIL NOT TO SCALE

# **DETAIL** A MECHANIC

Engine

**KOL** 248.75 #

DEPARTMENT OF JRAL RESOURCES

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REVISION DRAWN BY: PROJECT NUMBER: CB 15-04-88-01 CHK'D BY: DATE: JC 07.29.2015

M2.0

<b>CONDENSING UNIT SC</b>	HEDULE
REFERENCE	CU-1
MANUFACTURER	MITSUBISHI
MODEL#	MXZ-3B24NA
SERVES	SSI-1/SSI-2
NOMINAL TONS	2
COOLING CAP. (RATED/MIN.) (BTU/H)	25,000 / 12,600
HEATING CAP. (RATED/MIN.) (BTU/H)	30,600 / 11,400
LOW TEMP. HEATING CAP. (AT 17F) (BTU/H)	17,000
REFRIGERANT	R410A
#COMPRESSORS	1
SEER	16.3
HSPF	8.9
VOLTAGE/PH	240/1
MCA	18
OVERCURRENT PROTECTION (AMPS)	20
NOTES	1, 2, 3, 4

- 1. DISCONNECT SHALL BE PROVIDED / INSTALLED BY E.C.
- 2. UNIT TO BE MOUNTED TO BUILDING EXTERIOR WALL.
- 3. REFER TO SPLIT SYSTEM INDOOR UNIT SCHEDULE FOR CAP. RATING CONDITIONS.
- 4. HEATING MODE OF HEAT PUMP TO SERVE AS BACKUP FOR RADIANT FLOOR HEATING SYSTEM.

GAS HOT WATER BOILER SCHEDULE			
REFERENCE	B-1		
MANUFACTURER	LAARS		
MODEL#	MLXH125		
BOILER TYPE	INSTANTANEOUS CONDENSING		
FUEL	L. P.		
GAS PRESSURE (MIN/MAX)	4.0" / 14" W.C.		
SERVES	RADIANT FLOOR SYSTEM		
GAS INPUT (MBH)	125		
GAS OUTPUT (MBH)	119		
TURNDOWN	5:1		
DIMENSIONS (W/H/D)	17"W X 31"H X 18"D		
THERMAL EFFICIENCY (%)	95		
ENTERING WATER TEMP (°F)	50		
LEAVING WATER TEMP (°F)	120		
COMB. AIR / FLUE DIAM	3"		
VOLTAGE/PH	120/1		
FLA (AMPS)	1.5		
MCA	15		
NOTES	1,2,3,4,5,6		

#### NOTES:

- 1. 3/4" HWS/HWR CONNECTIONS
- 2. PROVIDE WITH PACKAGED BOILER CONTROLS.
- 3. PROVIDE CONDENSATE NEUTRALIZER FOR THE BOILER CONDENSATE DRAIN.
- 4. 3" EXHAUST VENT PIPE TO BE PVC/CPVC, PE, OR STAINLESS STEEL. 3" INTAKE CAN BE ABS, PVC, CPVC OR GALVANIZED. INSTALL PER MFR RECOMMENDATIONS.
- 5. PROVIDE PRIMARY BOILER PUMP WITH BOILER THAT COMES INSTALLED AND WIRED TO THE BOILER FROM THE FACTORY.
- 6. BOILER TO BE INTERLOCKED WITH RADIANT CIRCULATION PUMP (RCP-1) SO THAT BOILER CAN ONLY BE ENABLED WHEN RCP-1 IS OPERATING.

EXHAUST FAN SCHEDULE				
REFERENCE	EF-1	EF-2		
MANUFACTURER	GREENHECK	GREENHECK		
MODEL#	SP-B110	SE1-14-432-A4		
TYPE	IN-CEILING	PROPELLER		
SERVES	BATHROOM	SHOP		
CFM	75	1,900		
ESP (IN. W.C.)	0.30	0.25		
FAN RPM	950	1622		
BELT/DIRECT	DIRECT	DIRECT		
SPEED CONTROL (YES/NO)	YES	YES		
SONES	2	10.2		
DAMPER TYPE	GRAV. BACKDRAFT	M.O.D. (INSULATED LOW LEAK)		
ВНР	100 W	0.20		
MOTOR HP	100 W	1/4		
VOLTAGE/PH	120/1	120/1		
NOTES	1,2,3	4,5,6,7,8		

#### NOTES:

- 1. PLUG DISCONNECT BY FAN MFR.
- 2. FAN TO INCLUDE LOW PROFILE WHITE EXHAUST GRILLE. 3. FAN TO BE CONNECTED TO ROOM LIGHT SWITCH.
- 4. PROVIDE WITH POTENTIOMETER DIAL SPEED CONTROL TO BE LOCATED IN UNIT HOUSING.
- 5. PROVIDE WITH GREENHECK VCD-34-PB-16X16 (MOUNTED) DAMPER AND 115 VAC ACTUATOR WITH UNIT.
- 6. FAN TO OPERATE BY WALL SWITCH PROVIDED WITH UNIT AND LOCATED BELOW UNIT. WIRING BY E.C. 7. EC TO POWER MOTORIZED DAMPER TO OPEN/CLOSE WITH FAN START OR STOP.
- 8. PROVIDE WITH DISCONNECT, 45 DEG. GALV. WEATHERHOOD WITH BIRDSCREEN AND LONG WALL HOUSING.

<b>GLYCOL FEED STATION SCHEDULE</b>			
REFERENCE	GFS-1		
MANUFACTURER	WESSELS		
MODEL#	GMP-6		
SERVES	RF-1 (RADIANT SYSTEM)		
TANK VOLUME	6 GALLONS		
UNIT DIMENSIONS	12" W X 12"D X 18" H		
FACTORY DISCH. PRESS. SETTING	12 PSIG		
VOLTAGE/PH	115/1		
NOTES	1, 2, 3		

- 1. DISCONNECT SHALL BE PROVIDED / INSTALLED BY E.C.
- 2. SYSTEM CONNECTION SIZE IS 1/2"NPT.
- 3. PROVIDE UNIT ABOVE, EQUIVALENT BY GENERAL TREATEMENT PRODUCTS OR PRE-APPROVED EQUAL.

PUMP SCHEDULE			
REFERENCE	RCP-1		
MANUFACTURER	TACO		
MODEL#	L1130		
SERVES	RADIANT FLOOR SYSTEM		
GPM	8.5		
TOTAL DEVELOPED HEAD (FT)	23		
НР	1/8		
PUMP RPM	3,250		
VOLT/PHASE	120/1		
NOTES	1, 2		

#### 1. E.C. TO PROVIDE DISCONNECT.

2. PUMP TO RUN TO MAINTAIN SPACE TEMP. REFER TO RADIANT MANIFOLD DETAILS.

SPLIT SYSTEM HEAT PUMP INDOOR UNIT SCHEDULE			
REFERENCE	SSI-1	SSI-2	
MANUFACTURER	MITSUBISHI	MITSUBISHI	
MODEL#	SEZ-KD15NA	SLZ-KA12NA	
TYPE	ABOVE CEILING DUCTED	CEILING CASSETTE	
SERVES	OFFICES	CONFERENCE ROOM	
NOMINAL TONS	1	1	
MAX UNIT CFM	530	390	
EXTERNAL STATIC PRESSURE (IN. W.G.)	0.2	N/A	
COOLING CAP. (RATED/MIN.) (BTU/H)	14,100	11,100	
HEATING CAP. (RATED/MIN.) (BTU/H)	18,000	13,600	
REFRIGERANT	R410A	R410A	
SEER	16.3	16.3	
HSPF	8.9	8.9	
VOLTAGE/PH	240/1	240/1	
MCA	1	1	
MOCP	SEE C.U. SCHEDULE	SEE C.U. SCHEDULE	
NOTES	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	

- 1. PROVIDE WITH REMOTE WALL MOUNTED THERMOSTAT.
- 2. INDOOR UNIT RECEIVES POWER FROM OUTDOOR UNIT BY INTERCONNECTED WIRING PROVIDED BY M.C. WIRING BY E.C.
- 3. COOLING RATED CAPACITY IS BASED ON THE FOLLOWING CONDITIONS. INDOOR: 80F/76F, OUTDOOR: 95F/75F 4. HEATING RATED CAPACITY IS BASED ON THE FOLLOWING CONDITIONS. INDOOR: 70F/60F, OUTDOOR: 47F/43F
- 5. HEATING MODE OF HEAT PUMP TO SERVE AS BACKUP FOR RADIANT FLOOR HEATING SYSTEM.
- 6. PROVIDE FILTER WITH UNIT AND PROVIDE UNIT WITH INTEGRAL CONDENSATE PUMP.

RADIANT FLOOR MANIFOLD SCHEDULE			
REFERENCE	RF-1	RF-2	
MANUFACTURER	ROTH RADIANT	ROTH RADIANT	
MODEL#	NP MANIFOLD SET	NP MANIFOLD SET	
SERVES	SHOP	OFFICE AREAS	
SUPPLY WATER TEMP (F)	120	120	
TUBE SPACING	12"	12"	
TUBE SIZE (NOMINAL)	1/2"	1/2"	
LOAD (BTUH/S.F.)	30	30	
APPROX. SQ. FT OF COVERAGE	2,450	875	
TOTAL LOAD (BTUH)	73,500	26,250	
AMBIANT ROOM TEMP (F)	68	68	
FLOOR COVERING	POLISHED CONCRETE	CARPET	
TOTAL MANIFOLD GPM	6.0	2.5	
MINIMUM LOOPS REQUIRED	9	5	
MAXIMUM LOOP LENGTH (FT)	300	300	
MAXIMUM TUBE & MANIFOLD PRESS. DROP (FT)	10	10	
SYSTEM FLUID	30% PROPYLENE GLYCOL	30% PROPYLENE GLYCOL	
NOTES	1	1	

1. MFR TO PROVIDE OPEN/CLOSE TYPE CONTROL VALVE WITH MANIFOLD AND ZONE THERMOSTAT.

GRILLES REGISTERS AND DIFFUSERS SCHEDULE								
REFERENCE	MATERIAL	MARGIN (IN)	INLET (IN)	FACE (IN)	DAMPER	MFR	MODEL	NOTES
CD-1 (SUPPLY DIFFUSER)	STEEL	NA	SEE DWG	24x24	NO	TITUS	OMNI	1,2
SG-1 (SUPPLY GRILLE)	ALUMINUM	1 1/4"	SEE DWG	INLET +2"	YES	TITUS	300FL	2
RG-1 (RETURN GRILLE)	STEEL	NA	FACE ONLY	24x24	NO	TITUS	PXP	1,2
RG-2 (RETURN GRILLE)	ALUMINUM	1 1/4"	SEE DWG	INLET +2"	YES	TITUS	350ZFL	2
NOTES	•							

- 1. REFER TO ARCH DRAWINGS FOR FINAL CEILING TYPE FOR MOUTING TYPE.
- 2. PROVIDE WITH WHITE FINISH.

CABINET UNIT HEATER SCHEDULE		
REFERENCE	CUH-1	
MANUFACTURER	INDEECO	
MODEL#	CUI	
TYPE	HORIZONTAL CEILING RECESSED	
SERVES	VESTIBULE	
CFM (MAX./MIN.)	250 / 200	
DIMENSIONS L X W X D (IN)	28 X 26 X 10	
KW (MAX.)	4	
AMPS	18.1	
VOLTAGE/PH	240/1	
NOTES	1,2,3	

- 1. PROVIDE UNIT WITH INTEGRAL DISCONNECT AND INTEGRAL THERMOSTAT.
- 2. FINAL COLOR TO BE SELECTED BY ARCH. 3. UNIT HAS TWO STAGE HEATING AND HIGH/LOW FAN SPEEDS.

MOTORIZED DAMPERS			
REFERENCE MOD-1			
MANUFACTURER	GREENHECK		
MODEL	VCD-34		

LILINOL	IVIOD-1
NUFACTURER	GREENHECK
DDEL	VCD-34
ZE (W X H) (IN.)	36 X 24
M	1,900
ADE STYLE	OPPOSED
ADE DIRECTION	HORIZONTAL
SULATED	YES
TUATOR TYPE	ELECTRIC (120 V)
TUATOR STYLE	2 POSITION
WER FAILURE POSITION	CLOSED
OTES	1.2.3

- 1. EC TO POWER MOTORIZED DAMPER TO OPEN/CLOSE WITH FAN START OR STOP.
- 2. DAMPER SHOULD BE ULTRA LOW LEAK TYPE WITH GASKETED SEALS 3. PROVIDE UNIT OR PRE-APPROVED EQUAL.

LOUVER SCHEDULE		
REFERENCE	L-1	
MANUFACTURER	GREENHECK	
MODEL	ESD-403	
APPLICATION	INTAKE FOR SHOP	
MATERIAL	ALUMINUM	
SIZE (W X L X D) (IN.)	36 X 30 X 4	
CFM	1,900	
FREE AREA (SQ. FT.)	3.75	
PRESSURE DROP (IN. W.C.)	0.052	
FREE AREA VELOCITY (FPM)	546	
BLADE DIRECTION	HORIZONTAL	
INSTALLATION	S.I.P.S. METAL WALL	
DRAINABLE	YES	
NOTES	1,2,3,4	

- 1. PROVIDE COLOR CHARTS TO ARCHITECT FOR COLOR SELECTION.
- 2. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 3. PROVIDE WITH BIRDSCREEN
- 4. PROVIDE LOUVER ABOVE, EQUIVALENT BY NCA, UNITED ENERTECH OR ENGINEER PRE-APPROVED EQUAL.

IOWA DEPARTMENT OF NATURAL RESOURCES

SCHEDULES

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MECHANIC

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DATE REVISION

DRAWN BY: PROJECT NUMBER: CB 15-04-88-01

CHK'D BY: DATE: JC 07.29.2015

1. REFER TO MO.O FOR GENERAL NOTES.

REFER TO PLUMBING ROUGH-IN SCHEDULE ON P2.0 FOR MINIMUM FIXTURE CONNECTION SIZES.

**GENERAL NOTES** 

IOWA DEPARTMENT OF NATURAL RESOURCES

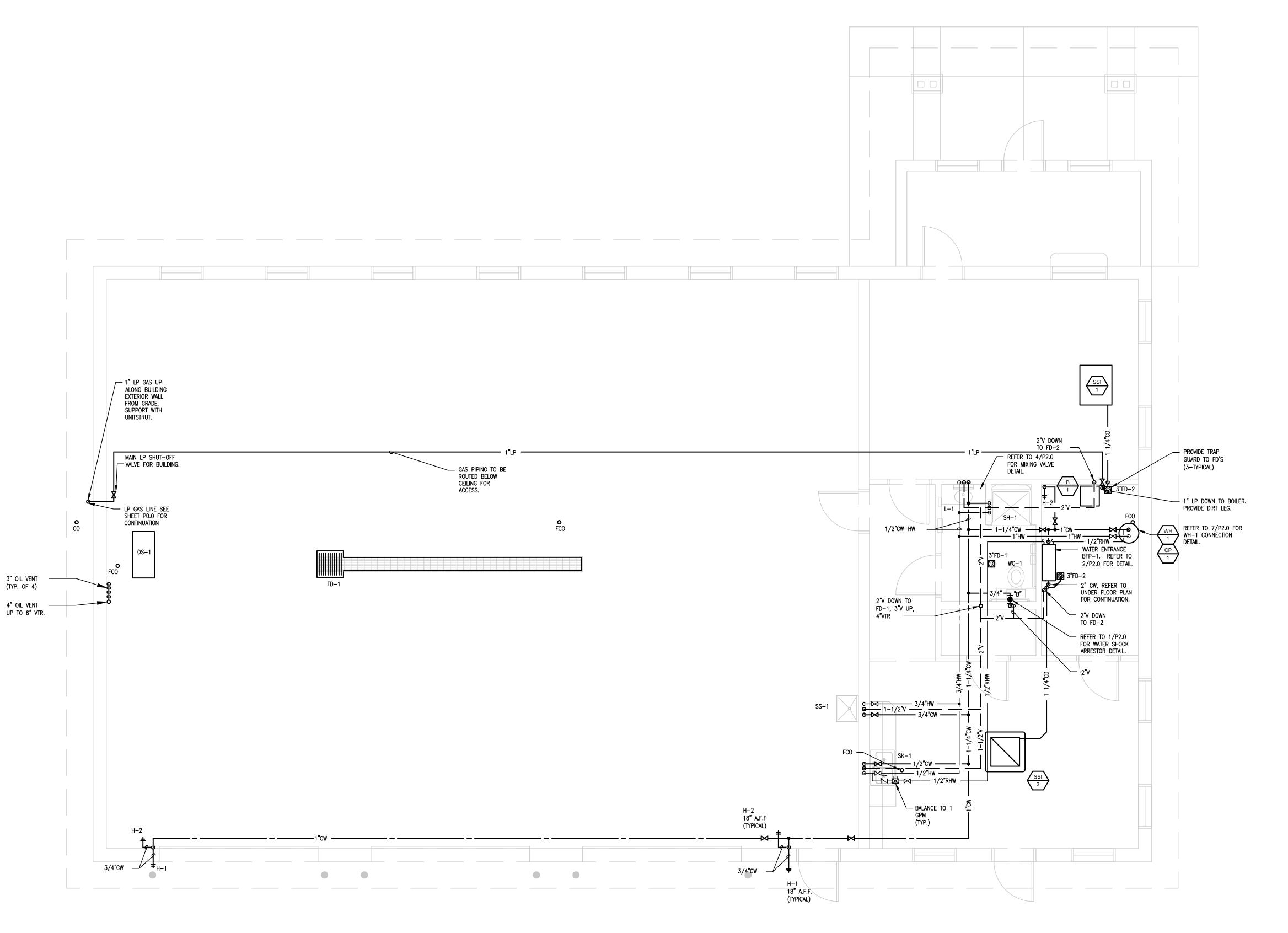


OFFICE UNDER FLOOR PLAN - PLUMBING

CB 15-04-88-01

CHK'D BY: DATE:
JC 07.29.2015

OFFICE UNDER FLOOR PLAN - PLUMBING SCALE: 1/4" = 1'-0"



**GENERAL NOTES** 

1. REFER TO MO.O FOR GENERAL NOTES.

- 2. REFER TO PLUMBING ROUGH—IN SCHEDULE ON P2.0 FOR MINIMUM FIXTURE CONNECTION SIZES.
- 3. REFER TO 3/P2.0 FOR FLOOR DRAIN DETAIL.
- 4. REFER TO 5/P2.0 FOR CLEVIS PIPE HANGER DETAIL.
- 5. REFER TO 8/P2.0 FOR VENT THRU ROOF DETAIL.
- 6. REFER TO 6/P2.0 FOR FLOOR CLEANOUT DETAIL.
- 7. ALL EXTERIOR AND INTERIOR EXPOSED GAS LINES SHALL BE PAINTED PER ARCHITECTS COLOR CHOICE.

IOWA DEPARTMENT OF NATURAL RESOURCES



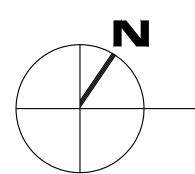
STATE GREEN

OFFICE FLOOR PLAN - PLUMBING

o. BY REVISION

CB 15-04-88-01 CHK'D BY: DATE: 07.29.2015

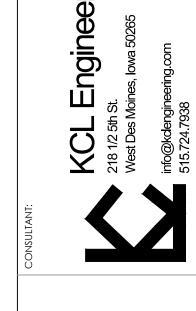
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OFFICE FLOOR PLAN - PLUMBING

SCALE: 1/4" = 1'-0"





WA DEPARTMENT OF ATURAL RESOURCES

I - PLUMBING

- AWCI VENIL

SREEN VALLEY

1480 130TH S

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DATE REVISION

DRAWN BY: PROJECT NUMBER:

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JC 07.29.2015

HEET No:

P1.1

REFERENCE	MFR	MODEL	DESCRIPTION	TRIM	
BFP-1	WATTS	009/909	BACKFLOW PREVENTOR - REDUCED PRESSURE ZONE ASSEMBLY, BRONZE BODY CONSTRUCTION OR FDA APPROVED EPOXY COATED CAST IRON. INTERNAL PRESSURE RELIEF VALVE BETWEEN TWO CHECK VALVES. REPLACABLE SILICONE SEAT DISCS. PROVIDE WITH AIR GAP DRAIN FITTING. SERVICE OF ALL COMPONENTS SHALL BE THROUGH SINGLE ACCESS BRONZE COVER WITH STAINLESS BOLTS. COMPLY WITH AWWA AND ASSE.	PROVIDE FLOOD CONTROL SYSTEM, VALVE WITH SOLENOID AND ALL REQUIRED WIRING PER DETAIL 1/P2.0	
FCO-1	ZURN	Z1400	ADJUSTABLE FLOOR CLEANOUT, CAST IRON BODY, TAPERED THREAD PLUG AND ROUND NICKEL BRONZE SCORIATED CAST IRON HEAVY-DUTY SECURED TOP, ADJUSTABLE TO FINISHED FLOOR. OUTLET SIZE AS NOTED ON DRAWINGS.	NA	
FD-1	ZURN	ZB-415-6B-P-ZB	CAST IRON BODY FLOOR DRAIN, TYPE "B" 6" ROUND POLISHED NICKEL BRONZE STRAINER, DEEP SEAL TRAP. OUTLET SIZE AS NOTED ON DRAWINGS, MIN. 3".	NA	
FD-2	ZURN	Z-415	CAST IRON BODY FLOOR DRAIN, TYPE "B" 8" ROUND POLISHED BRONZE STRAINER, DEEP SEAL TRAP. OUTLET SIZE AS NOTED ON DRAWINGS, MIN. 3".	NA	
H-1	WOODFORD	MB67	FREEZELESS, WALL HYDRANT, BRASS VALVE BODY AND SEAT, STANDARD FINISH, NON-FERROUS METAL STEM, HIGH FLOW DOUBLE CHECK BACKFLOW PREVENTER, LOCKABLE COMPOSITE BOX W/COVER PLATE, 3/4" MALE HOSE THREAD, ASSE 1052 APPROVED AND IAPMO LISTED. INSTALL AT 18" ABOVE FINISH GRADE.	NA	
H-2	WOODFORD	MODEL 24	WALL HYDRANT, BRASS VALVE BODY AND SEAT, STANDARD FINISH, NON-FERROUS METAL STEM, VACUUM BREAKER - ANTI-SIPHON, 3/4" MALE HOSE THREAD, ASSE 1011 APPROVED, CSA AND IAPMO LISTED. INSTALL AT 18" ABOVE FINISH GRADE.	NA	
L-1	KOHLER	K-2210	UNDER COUNTER MOUNT VITREOUS CHINA LAVATORY, WITH OVERFLOW, PROVIDE WITH CLAMP ASSEMBLY, ADA COMPIANT.	DELTA "21C" OR APPROVED EQUAL TWO HANDLE TYPE FAUCET, WITH METAL POP-U AND TRAP, LEVER BLADE HANDLES. MAXIMUM FIXTURE FLOW TO BE 0.5 GPM. PROVIDE POWERS "LM495" POINT OF USE MIXING VALVE UNDER FIXTURE. MIXING VALVE MUS MEET ASSE 1070 AND IPC 2009 REQUIREMENTS. PROVIDE WITH 1/4 TURN, 3/8" BRASS STOPS. PROVIDE WITH TRUEBRO "LAV GUARD" CW/HW AND WASTE PIPE GUARDS AI ESCUTCHEONS.	
OS-1	ROCKFORD	OST-5624-50	OIL/WATER SEPARATOR, ALL WELDED A36 1/4" STEEL, 25 GPM INTERMITTENT FLOW, 45 GALLON STATIC CAPACITY WITH 50 GALLON WASTE OIL STORAGE, 3" THREADED INLET/OUTLET AND 3" THREADED VENT CONNECTIONS (4), VISIBLE DOUBLE-WALL OUTSIDE TRAP SEAL, REMOVABLE FILTER SCREEN, NON-REMOVABLE SEPARATOR SCREENS, 3/8" NONSKID TREADPLATE COVER FOR VEHICLE TRAFFIC LOAD WITH HEAVY DUTY LEAKPROOF GASKET. PROVIDE WITH EXTENSION AS REQUIRED TO INSTALL UNIT FLUSH WITH GRADE.	NA	
SH-1	KOHLER	K-12100	ADA ACRYLIC SHOWER MODULE, 36"L X 36"W AND 81"H, SHOWER DRAIN, FOLD UP SEAT, MOLDED-IN FLOOR PATTERN, INTEGRAL SOAP LEDGES AND "PIT" INSTALLATION OPTION, STAINLESS STEEL GRAB BARS. COORDINATE "PIT" INSTALLATION WITH FLOOR PRIOR TO POURING SLAB.	SYMMONS "H321-V" OR APPROVED FOLIAL SHOWERHEAD 2.5 GPM 5' METAL HOSE	
SK-1	ELKAY	ELUHE3118	DOUBLE BOWL, UNDER COUNTER MOUNT, P-TRAP, BOWL DIMENSIONS: 13.5" L x16" W x 8" D. UNDERCOATED, BASKET STRAINER. VERFIY FINAL DIMENSIONS FROM ARCH ELEVATION AND MILWORK DRAWINGS.	DELTA "101LF-HDF" OR APPROVED EQUAL, BRASS CONSTRUCTION, CHROME-PLATED FINISH, SWING SPOUT FAUCET, 8" REACH, 1.5 GPM AERATOR, SINGLE LEVER HANDLE, SEPARATE SPRAY WASH, TWO HOLE SUPPLIES FAUCET. PROVIDE WITH 1/4 TURN, 3/8" BRASS STOPS.	
SS-1	FIAT	L-1	WHITE MOLDED STONE WALL HUNG LAUNDRY TUB, 18 1/2" L X 24" W X 13"D, DRAIN WITH STOPPER, 17 GAL. HOLDING CAPACITY, HEAVY GAUGE GALVANIZED STEEL BRACKET CAPABLE OF WITHSTANDING 600 LBS.	PROVIDE WITH CHROME PLATED BRASS DECK TYPE 4" CENTERSET FAUCET WITH 6 3/4" SERVING SPOUT THAT MOUNTS ON REAR DECK. PROVIDE FAUCET WITH HOSE ADAPTER AS REQUIRED FOR 3/4" MALE HOSE THREAD. PROVIDE WITH P-TRAP AND SUPPLY RISERS.	
TD-1	ZURN	886-HD	TRAFFIC RATED TRENCH DRAIN CONSTRUCTED OF PRE-MANUFACTURED POLYETHYLENE TRENCH FORMING SYSTEM, 11.75" WIDE, 21' TOTAL LENGTH, PRE-SLOPED AT 1/8" PER FOOT, ROUNDED BOTTOM, INTERGAL DEFORMING GROVES, STEEL SUPPORT RAILS AND ANCHORING STUDS, HEAVY DUTY CAST IRON GRATE H-20 RATED, INTERGAL 24 X 24 CATCH BASIN WITH EXTRA HEAVY DUTY GRATE AND REMOVABLE SEDIMENT BASKET.	EL NA	
TD-2	ZURN	886-HD	TRAFFIC RATED TRENCH DRAIN CONSTRUCTED OF PRE-MANUFACTURED POLYETHYLENE TRENCH FORMING SYSTEM, 11.75" WIDE, 35' TOTAL LENGTH, PRE-SLOPED AT 1/8" PER FOOT, ROUNDED BOTTOM, INTERGAL DEFORMING GROVES, STEEL SUPPORT RAILS AND ANCHORING STUDS, HEAVY DUTY CAST IRON GRATE H-20 RATED, INTERGAL 24 X 24 CATCH BASIN WITH EXTRA HEAVY DUTY GRATE AND REMOVABLE SEDIMENT BASKET.	. NA	
WC-1 (ADA)	KOHLER	K-3979	FLOOR MOUNTED, 1.6 GPF, WHITE VITREOUS CHINA, ELONGATED BOWL, TANK TYPE TOILET, POLISHED CHROME TRIP LEVER, ADA COMPLIANT HEIGHT.	PROVIDE WITH ELONGATED SEAT, COVER AND 3/8" NPT ANGLE SUPPLY WITH STOP.	

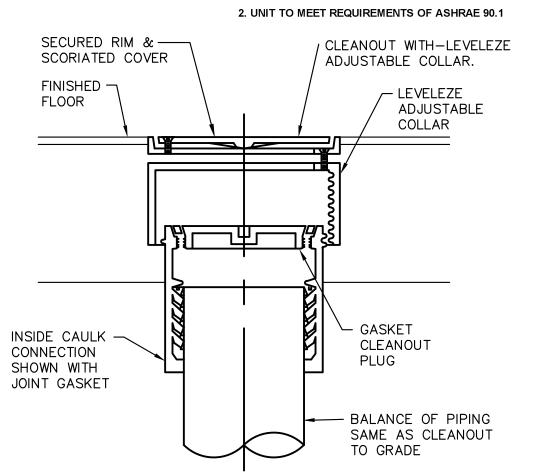
1. REFER TO PLUMBING FIXTURE SCHEDULE FOR MINIMUM CONNECTION SIZES.

DOMESTIC CIRC. PUMP									
REFERENCE	CP-1								
MANUFACTURER	BELL&GOSSETT								
MODEL#	PL-30								
TYPE	INLINE								
SERVES	DOM. WATER								
GPM	1								
MOTOR HP	0.08								
FT HEAD	10								
VOLTAGE/PH	115/1								
NOTES	1,2								

NOTES:
1. PUMP TO OPERATE PER TIMER PROVIDED/WIRED BY M.C.
2. EC TO PROVIDE DISCONNECT.

PUMP	<b>ELECTRIC WATER</b>	HEATER			
CP-1	REFERENCE	WH-1			
BELL&GOSSETT	MANUFACTURER	AO SMITH			
PL-30	MODEL#	ECT-40			
INLINE	SERVES	BUILDING			
DOM. WATER	GALLONS	40			
1	ENERGY FACTOR	0.92			
0.08	RECOVERY GPM 90F RISE	21			
10	INPUT KW	4.50			
115/1	VOLTAGE/PH	240 / 1			
1,2	NOTES	1,2			

240 / 1
1,2
TED T&P RELIEF VALVE

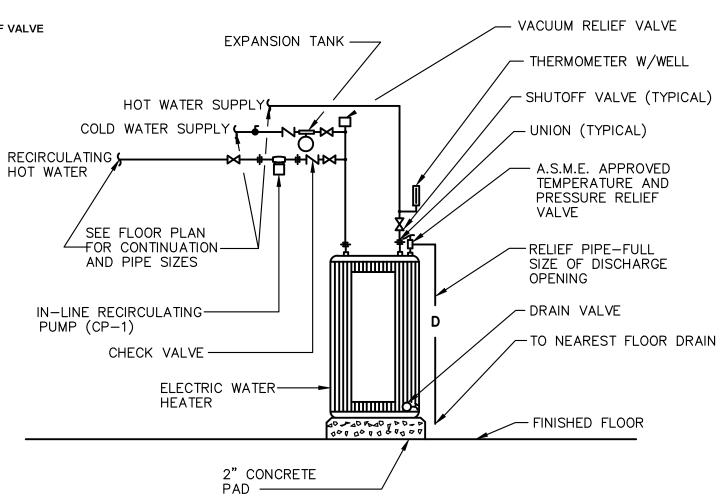


FLOOR	CLEANOUT	DETAIL
	NOT TO SCALE	

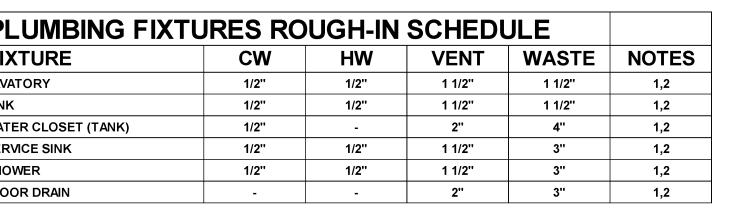
PLUMBING FIXTURES ROUGH-IN SCHEDULE										
FIXTURE	CW	HW	VENT	WASTE	NOTES					
LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	1,2					
SINK	1/2"	1/2"	1 1/2"	1 1/2"	1,2					
WATER CLOSET (TANK)	1/2"	-	2"	4"	1,2					
SERVICE SINK	1/2"	1/2"	1 1/2"	3"	1,2					
SHOWER	1/2"	1/2"	1 1/2"	3"	1,2					
FLOOR DRAIN	-	-	2"	3"	1,2					

1. ALL SIZES SHOWN ARE MINIMUM CONNECTION SIZES, REFER TO DRAWINGS FOR FINAL SIZES.

2. ALL BELOW FLOOR WASTE SIZES ARE TO BE A MINIMUM OF 2".



7 WATER HEATER DETAIL
NOT TO SCALE



FINISHED FLOOR 4 LOCAL MIXING VALVE DETAIL NOT TO SCALE

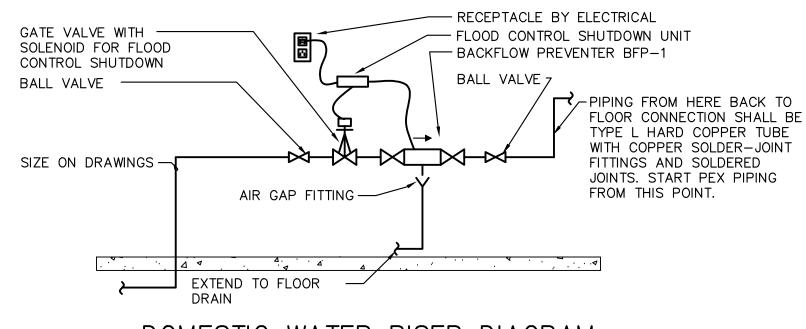
-PISTON TO PROVIDE A PERMANENT MECHANICAL BARRIER BETWEEN FLUID AND PRE-LOAD AIR CHARGE -BRASS FREE TURNING PISTON ASTM B-16 WITH O-RINGS -JOINTS TO BE MADE WITH 95-5 LEAD FREE SOLDER. -BRASS THREADED ADAPTOR FIXTURE UNIT RATINGS SYMBOL SIZE

-BARREL FABRICATED OF HARDDRAWN

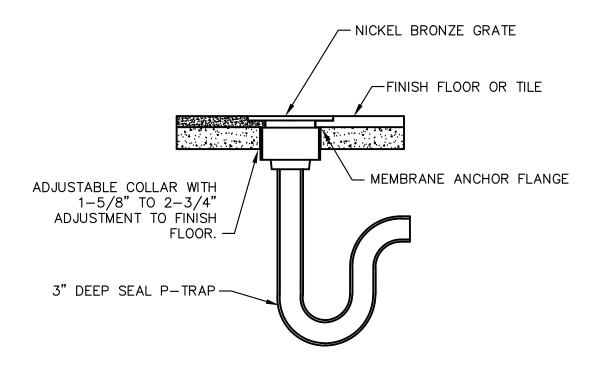
TYPE "K" COPPER

	1-1/2"	E	114 - 154	9"	1-1/2"	
	2"	F	155 – 330	9"	2"	
		CUIOC		CTO	ם הר	T A 11
$\bigcirc$	WAILK	2HO(	<u>ck arre</u>	<u> </u>	K VL	IAIL
$( \ )$			NOT TO COME			

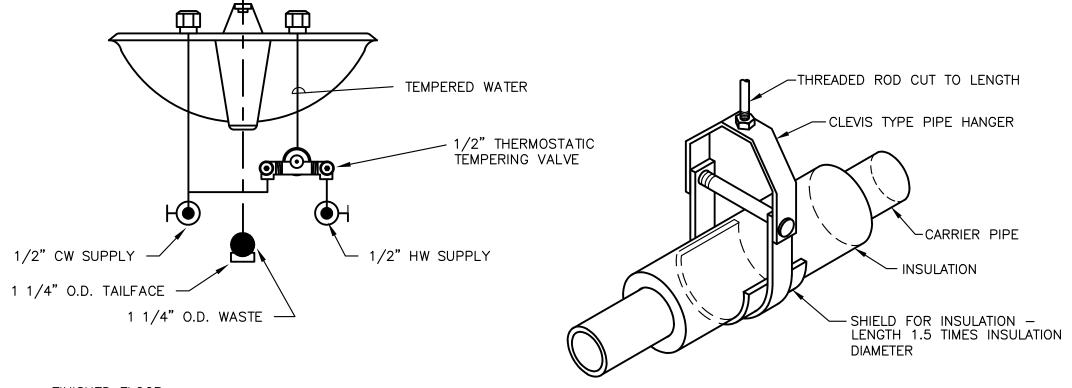
NOT TO SCALE



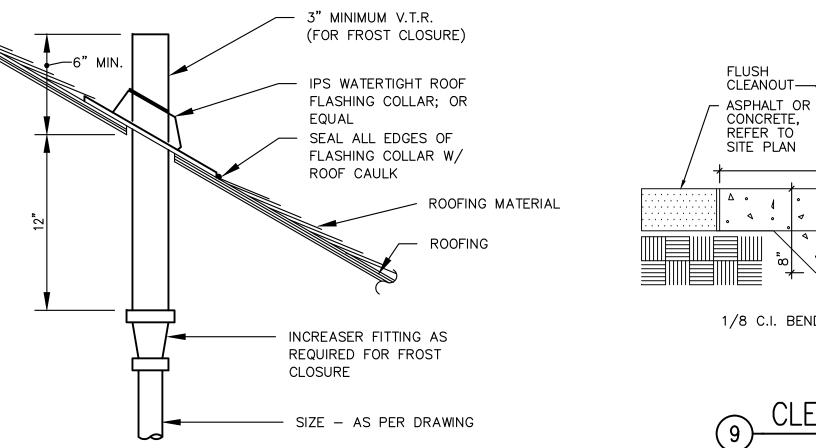




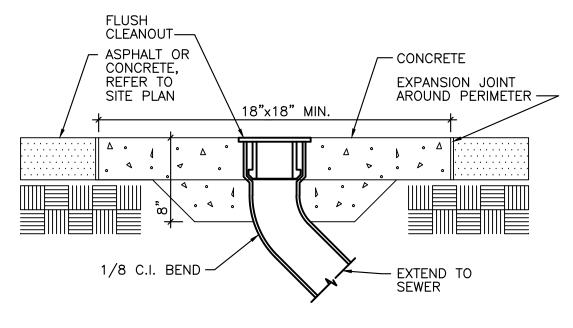
FLOOR DRAIN DETAIL



5 CLEVIS TYPE PIPE HANGER
FOR INSULATED PIPE
NOT TO SCALE



(8) PLUMBING VENT THROUGH PITCHED ROOF DETAIL



**Engineering** 

IOWA DEPARTMENT OF NATURAL RESOURCES



**DETAILS** 

AND

SCHEDULES

PLUMBING

Ш

D. BY REVISION DRAWN BY: PROJECT NUMBER: CB 15-04-88-01 CHK'D BY: DATE:

JC 07.29.2015

P2.0

# ELECTRICAL SYMBOLS

	RECESSED TROFFER
• •	PENDANT MOUNTED FIXTURE
<b>├</b>	STRIP FIXTURE
	SURFACE MOUNTED FIXTURE
$\otimes$	RECESSED DOWNLIGHT
L1 OH	WALL MOUNTED LIGHT FIXTURE — HEIGHT AS NOTED
<b>=</b>	DUPLEX RECEPTACLE, +18" OR AS NOTED
G <b>⊕=</b>	DUPLEX GROUND FAULT RECEPTACLE, +18" OR AS NOTED
WP <b>⊕</b> =	DUPLEX GROUND FAULT "WR"—TYPE RECEPTACLE WITH IN—USE WEATHERPROOF COVER, +24" OR AS NOTED
$^{\phi}$	DROPPED CORD/RECEPTACLE REEL MOUNTED FROM CEILING JUNCTION BOX
<b>(4)</b> -1	SPECIAL OUTLET AS NOTED, +18" OR AS NOTED
	EQUIPMENT CONNECTION AS NOTED
<b>-</b>	SAFETY DISCONNECT SWITCH, SEE EQUIPMENT SCHEDULE
<u>©</u>	OCCUPANCY SENSOR, CEILING MOUNTED
$\overline{\mathbb{C}}$	OCCUPANCY SENSOR, WALL MOUNTED. +48" OR AS NOTED
bS	SINGLE POLE SWITCH, +48" OR AS NOTED LOWERCASE LETTERING DENOTES SWITCH LEG
<b>bS</b> <sub>3</sub>	THREE WAY SWITCH, +48" OR AS NOTED LOWERCASE LETTERING DENOTES SWITCH LEG
S <sub>C</sub>	SPEED CONTROL SUPPLIED BY MECH. CONTR., INSTALLED BY ELEC. CONTR. ADJACENT TO OR INSIDE UNIT ENCLOSURE UNLESS OTHERWISE SHOWN
SUD	UP/DOWN/STOP CONTROL, +48" OR AS NOTED
$oldsymbol{ abla}$	DATA OUTLET, +18" OR AS NOTED
₩ <b>▼</b>	WALL TELEPHONE OUTLET, +48" OR AS NOTED
CH CH	PUSHBUTTON, +48" OR AS NOTED
	LIGHTING AND POWER PANEL - SURFACE MOUNTED
	PLYWOOD BACKBOARD, SIZE AS NOTED
	EXPOSED CONDUIT
LV	LOW VOLTAGE WIRING
	CONDUIT CONCEALED IN CEILING OR WALL CONSTRUCTION
	CONDUIT CONCEALED IN FLOOR CONSTRUCTION OR UNDERGROUND
3	NOTE REFERENCE
AHU	EQUIPMENT IDENTIFICATION
\1/	EQUIPMENT NUMBER
1 E401	INDICATES DETAIL NUMBER INDICATES DRAWING NUMBER WHERE DETAIL IS FOUND



#### **GENERAL NOTE:**

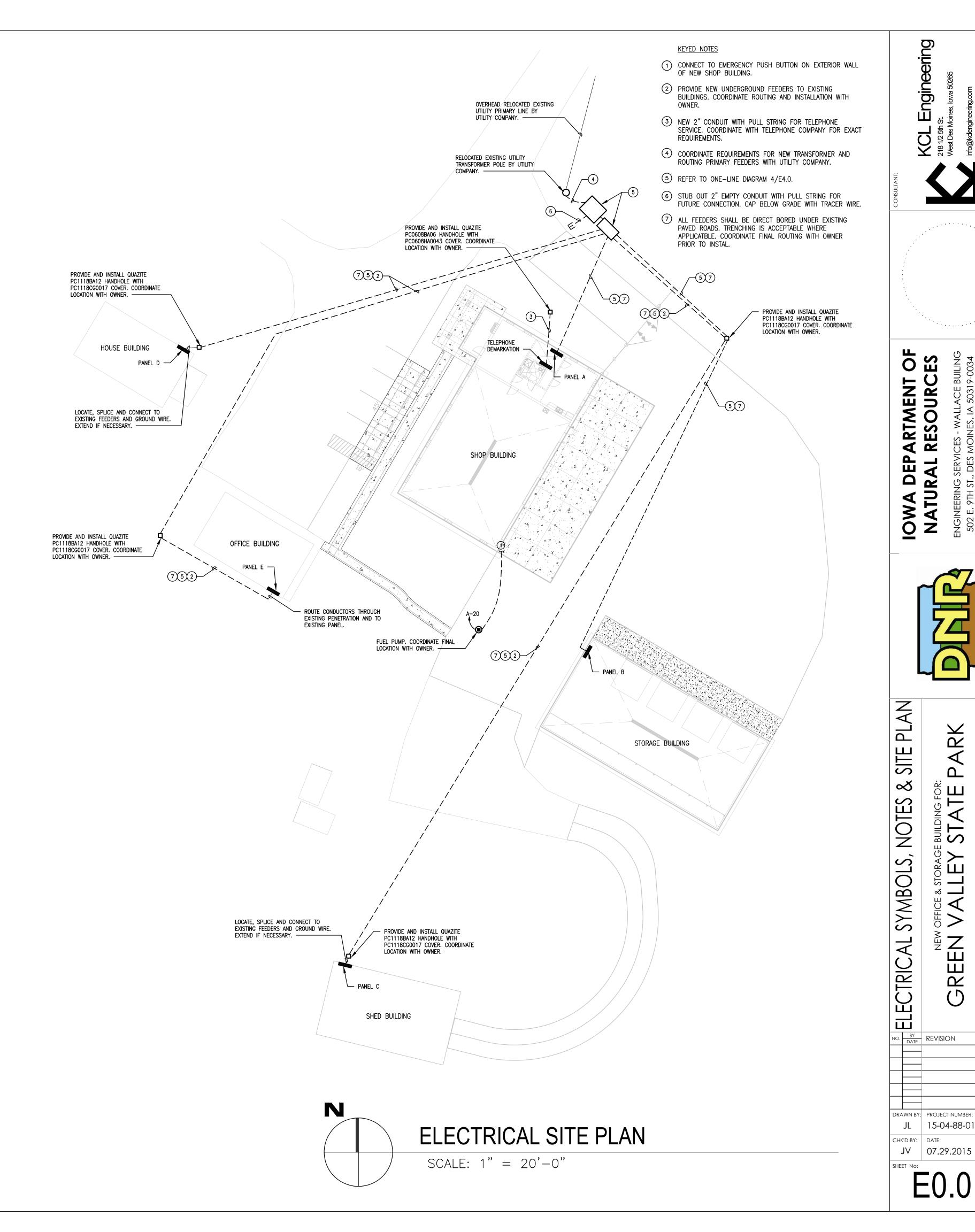
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN SHOWN BASED UPON INFORMATION OBTAINED FROM FIELD LOCATIONS BY UTILITY COMPANIES, AVAILABLE SURVEYS AND RECORDS. THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS ALSO POSSIBLE THAT THERE MAY BE OTHER UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES IN EXISTENCE THAT ARE NOT SHOWN. IT IS THE RESPONSIBILITY OF EACH INDIVIDUAL PARTY REFERENCING THIS PLAN TO DETERMINE THE EXACT LOCATION AND TYPE OF UNDERGROUND FACILITIES ON THE SITE. HAND EXCAVATE AT CRITICAL POINTS AS NECESSARY TO VERIFY LOCATIONS, SIZES, ELEVATIONS, FLOW LINES, ETC. IF A PROBLEM OR INTERFERENCE EXISTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING.

# ELECTRICAL ABBREVIATIONS

DEVICE MOUNTED +8" ABOVE COUNTER TOP ELECTRICAL CONTRACTOR GROUND FAULT CIRCUIT INTERRUPTER MECHANICAL CONTRACTOR MOTOR OPERATED DAMPER NON-SWITCHED LIGHT FIXTURE WEATHERPROOF DEVICE

# ELECTRICAL GENERAL NOTES

- 1. THE ENTIRE PROJECT SHALL COMPLY WITH THE CURRENT ISSUE OF THE NATIONAL ELECTRIC CODE (NEC), INCLUDING AMENDMENTS, AND WITH ALL STATE, LOCAL, AND OTHER CODES AS APPLICABLE. THE CURRENT ISSUE SHALL BE THE ISSUE THAT IS IN EFFECT WHEN THE CONSTRUCTION PERMITS ARE SECURED FOR THE WORK. THE INTERPRETATIONS AND DECISIONS OF THE AUTHORITY HAVING JURISDICTION OF APPLICABLE CODES SHALL GOVERN.
- 2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED STATE AND LOCAL PERMITS AND ASSOCIATED FEES.
- 3. NOTE THAT THE ELECTRICAL DRAWINGS ARE ONLY A PORTION OF THE COMPLETE SET OF PLANS. THE COMPLETE SET OF PLANS SHALL BE USED TO DEFINE THE ELECTRICAL WORK. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, USING THE ARCHITECTURAL PLANS FOR DIMENSIONS AND DETAILS; EQUIPMENT PLANS FOR ROUGH-IN REQUIREMENTS, AND THE MECHANICAL PLANS FOR EQUIPMENT SIZES AND LOCATIONS. COORDINATE ALL WIRING DEVICE LOCATIONS AND ELEVATIONS INDICATED ON PLANS WITH THE OWNER, ARCHITECT AND FINAL FURNITURE/EQUIPMENT LAYOUTS.
- 4. COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
- 5. RACEWAYS AND BOXES ARE SHOWN DIAGRAMMATICALLY ONLY AND INDICATE THE GENERAL AND APPROXIMATE LOCATION. THE LAYOUT DOES NOT SHOW THE TOTAL NUMBER OF RACEWAYS OR BOXES FOR THE CIRCUITS REQUIRED, NOR ARE THE LOCATIONS OF INDICATED RUNS INTENDED TO SHOW THE ACTUAL ROUTING OF THE RACEWAYS.
- 6. ALL CONDUCTOR SIZES ARE BASED ON COPPER UNLESS OTHERWISE NOTED. 7. SUPPORT ALL CONDUITS FROM STRUCTURAL SLABS, WALLS, STRUCTURAL MEMBERS AND ROOF JOISTS. DO NOT SUPPORT CONDUITS FROM CEILING TIE WIRES, DUCTWORK, PIPING OR OTHER NONSTRUCTURAL MEMBERS.



BY REVISION

JL 15-04-88-01

F6 +12'-0"

GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE BUT NOT BE LIMITED TO: BUILDING
STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS,
CABLE TRAYS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL
DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

IOWA DEPARTMENT OF NATURAL RESOURCES



GREEN

OFFICE FLOOR PLAN - LIGHTING

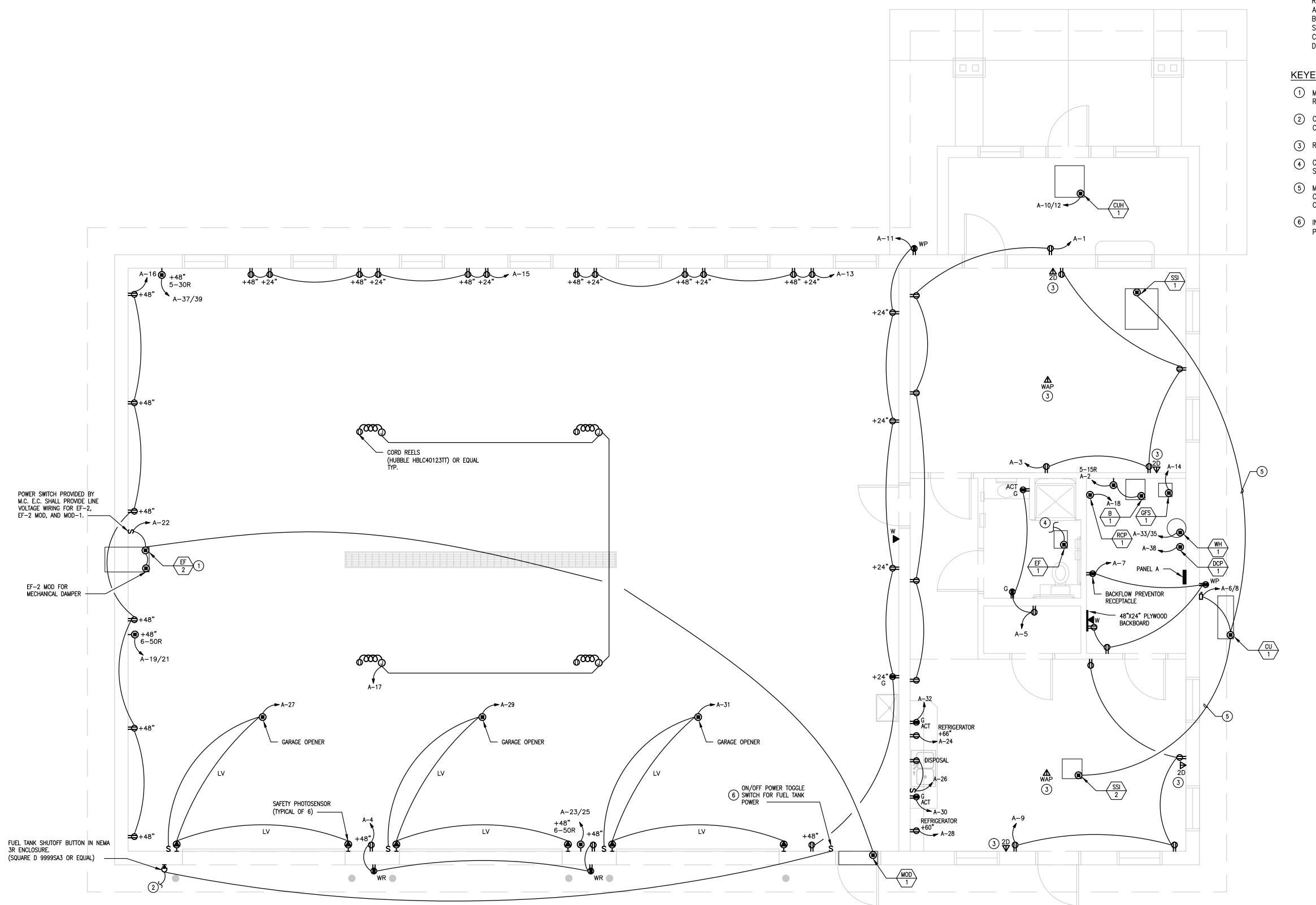
JL 15-04-88-01

CHK'D BY: DATE: 07.29.2015

E1.0



OFFICE FLOOR PLAN - LIGHTING



**GENERAL NOTES** 

1. COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH—IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

#### KEYED NOTES

- 1) MECHANICAL EXHAUST FAN WITH DAMPER. COORDINATE WIRING REQUIREMENTS WITH M.C.
- CONNECT TO FUEL TANK USING #10 CONDUCTORS IN 3/4" CONDUIT. REFER TO E0.0 FOR TANK LOCATION.
- (3) REFER TO DETAIL 3/E3.0.
- (4) CONNECT CEILING EXHAUST FAN TO ROOM LIGHTING CIRCUIT AND SWITCH.
- 5 M.C. TO PROVIDE ALL EQUIPMENT AND INTERCONNECTING CONDUCTORS. E.C. TO CONNECT SPLIT SYSTEM UNITS TO CONDENSING UNIT.
- 6 INSTALL ENGRAVED LABEL WITH TEXT AS FOLLOWS "FUEL TANK POWER SHUTOFF".

IOWA DEPARTMENT OF NATURAL RESOURCES



UNION COUNTY, IOWA

LEY STATE P.

SREEN VALL

VISION

o. BY REVISION

OFFICE FLOOR PLAN - POWER

DRAWN BY: PROJECT NUM

JL 15-04-88

JL 15-04-88-01

CHK'D BY: DATE:

JV 07.29.2015

E2.0

OFFICE FLOOR PLAN - POWER

SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO

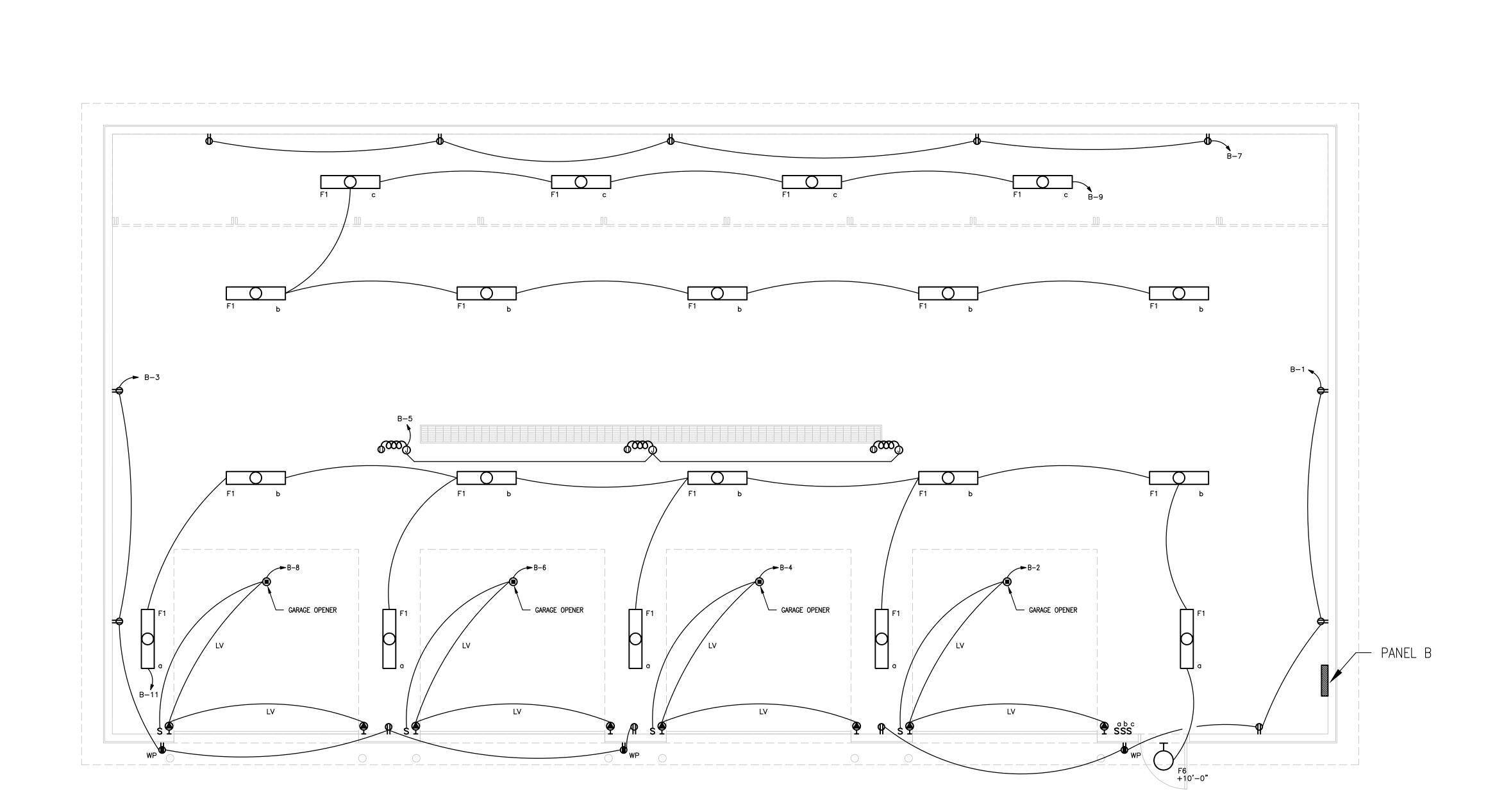
BE COORDINATED SHALL INCLUDE BUT NOT BE LIMITED TO: BUILDING

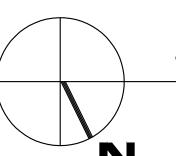
DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL

JV 07.29.2015

E3.0





# STORAGE FLOOR PLAN - ELECTRICAL

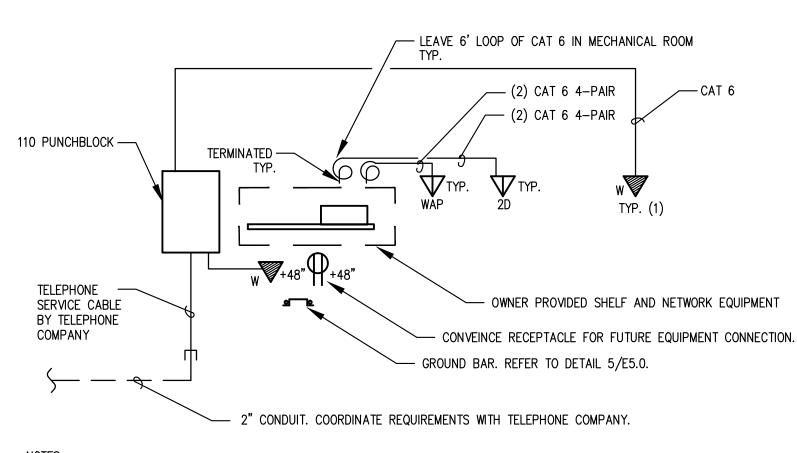
- A. ALLIANT ENERGY SHALL FURNISH AND INSTALL BOX-PAD. CUSTOMER SHALL PROVIDE AND INSTALL CONDUIT.
- B. AT ALLIANTS ENERGY'S DISCRETION CONDUIT ELBOWS MAY BE ELIMINATED AND THE CUSTOMER MAY EXTEND THE CONDUIT WITHOUT ELBOWS UNDER THE PAD TO THE OPENING AND INSTALL CONDUIT
- C. CONTACT ALLIANT ENERGY ENGINEERING FOR SIZE AND NUMBER OF CONDUIT
- D. BOX-PADS COME WITH 3/8 INCH UNC EMBEDDED NUTS FOR BOLTING TRANSFORMERS TO PAD.
- E. TRANSFORMERS SHOULD NOT EXTEND OVER EDGES OF BOX-PAD. LARGER TRANSFORMERS WITH COOLING FINS MAY REQUIRE THE LARGER BOX-PAD.
- TRANSFORMERS OR OTHER PAD MOUNTED EQUIPMENT SHALL NOT BE COVERED WITH DECORATIVE OBJECTS FOR THE PURPOSE OF HIDING THE ALLIANT ENERGY EQUIPMENT FROM PUBLIC VIEW.

# UTILITY TRANSFORMER AND BOX-PAD

NOT TO SCALE

- LAY CABLE IN CIRCLE PATTERN BETWEEN GROUND 3/4" X 10'-0" GROUND ROD AT EACH CORNER CADWELD RODS (TYP.) TO #4 BARE COPPER GROUND CONDUCTOR -#4 BARE COPPER CONDUCTOR 36" BELOW GRADE (TYP.) EXTEND TO BUILDING SERVICE GROUND AND BOND TO ELECTRIC SERVICE, BUILDING STRUCTURE, WATER PIPE, ETC. PER N.E.C. -TOP VIEW

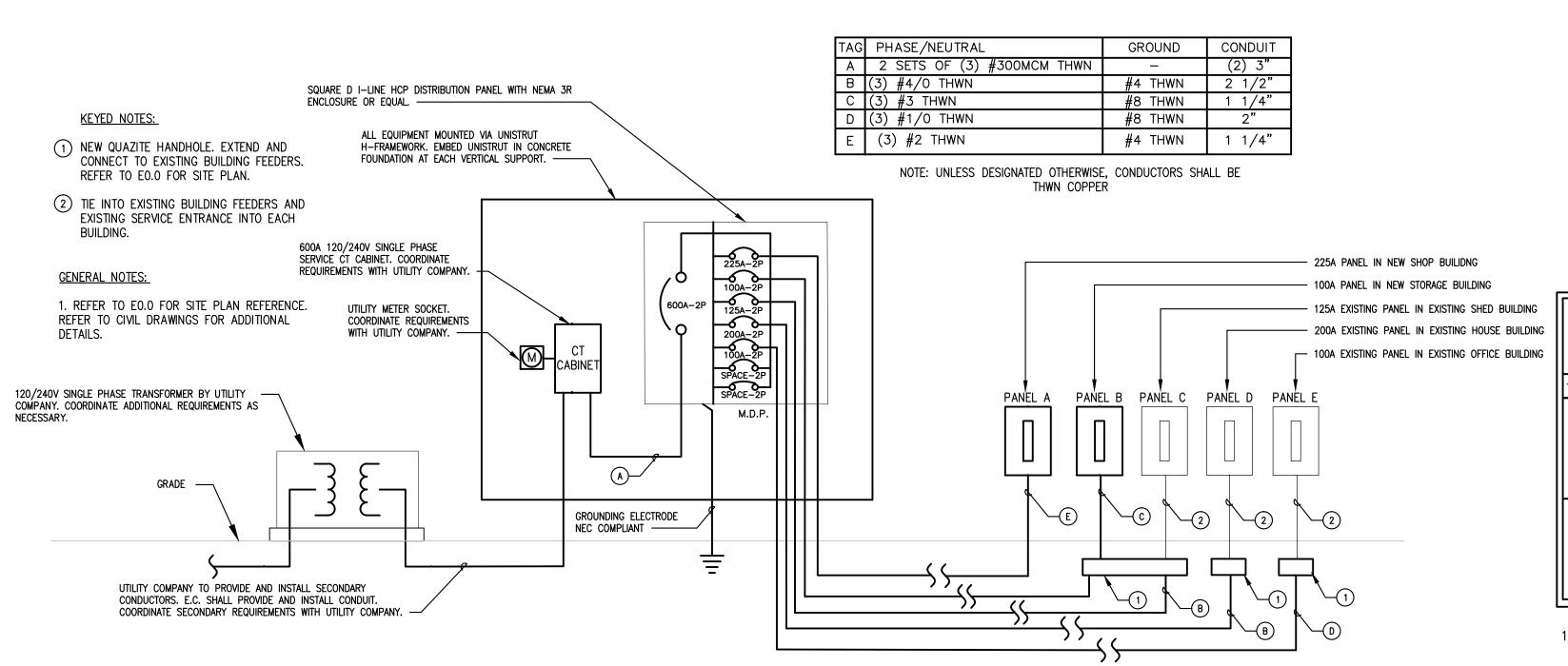
NEW BUILDING GROUND RING NOT TO SCALE

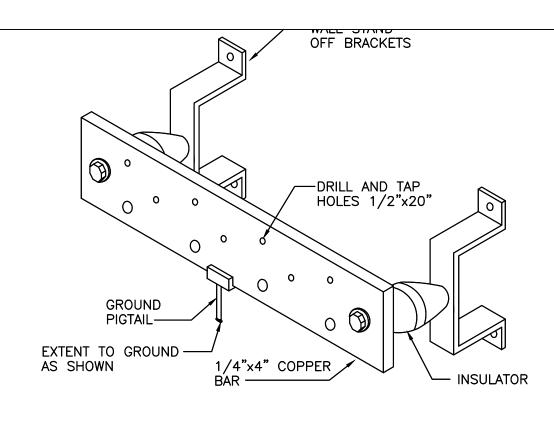


1. ALL CABLES SHALL ADHERE WITH TRANSMISSION STANDARDS IN TIA/EIA-568-B.1

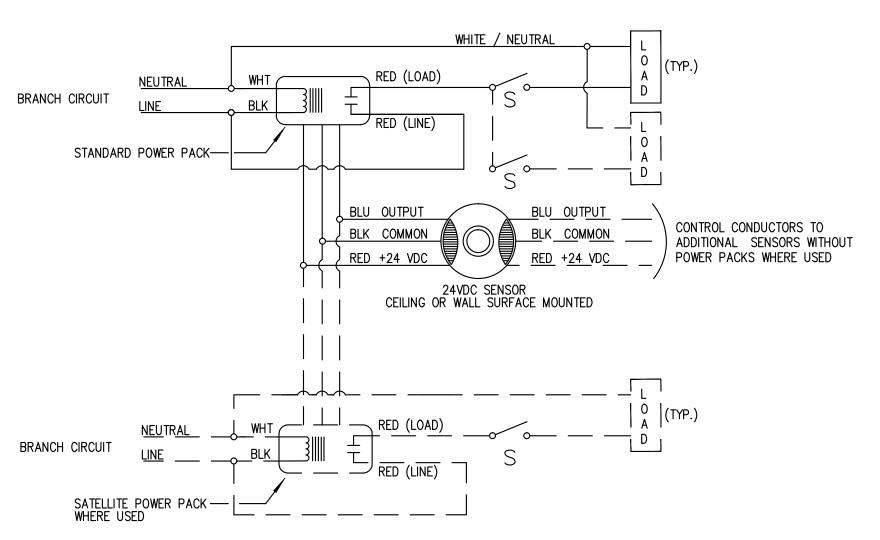
- 2. ALL CABLES SHALL BE 100-OHM, FOUR-PAIR UTP, FORMED INTO 25-PAIR, BINDER GROUPS COVERED WITH A BLUE THERMOPLASTIC JACKET.
- 3. OWNER SHALL PROVIDE AND INSTALL OWN TELECOMMUNICATION EQUIPMENT.

# VOICE/DATA RISER





NOT TO SCALE



MANUAL ON & OCCUPANCY SENSOR LIGHTING CONTROL WIRING - TYPICAL

# LIGHTING CONTROL DEVICE SCHEDULE

TYPE	MANUFACTURER & MODEL NUMBER	MOUNTING	VOLTAGE	DETAILS	APPROVED EQUALS
⊢ <u>0C</u> 1	GREENGATE CONTROLS ONW-D-1001-DMV-N-W	WALL	120-277V	500 SQUARE FOOT COVERAGE ULTRASONIC PASSIVE INFRARED WALLBOX OCCUPANCY SENSOR WITH TWO MANUAL ON SWITCHES AND INTEGRAL DAYLIGHTING PHOTOCELL. IMPACT RESISTANT PIR LENS AND HOUSING WITH WHITE FINISH. 120/277 VOLT INPUT POWER. INTEGRAL SELF-ADJUSTING SENSITIVITY MICROPROCESSOR. FIELD CONFIGURE SENSOR FOR MANUAL ON, AUTOMATIC OFF OPERATION. FULL FIVE YEAR WARRANTY FURNISHED BY MANUFACTURER.	WATTSTOPPER LEVITON SCHNEIDER ELECTRIC SENSOR SWITCH HUBBLE AUTOMATION
© 2 2 2A	GREENGATE CONTROLS OAC-DT-2000/SP20-MV GREENGATE CONTROLS OAC-DT-2000	CEILING	120-277/ 24VDC	2000 SQUARE FOOT COVERAGE ULTRASONIC AND PASSIVE INFRARED OCCUPANCY SENSOR WITH WHITE FINISH AND 120-277/24 VOLT POWER PACK. INTEGRAL SELF-ADJUSTING SENSITIVITY MICROPROCESSOR. 360° ULTRASONIC COVERAGE AND 360° PASSIVE INFRARED COVERAGE. FULL FIVE YEAR WARRANTY FURNISHED BY MANUFACTURER. WIRE OC-2A TO BE SLAVE TO OC-2 POWER PACK. WIRE UP TO 4 PER POWER PACK.	WATTSTOPPER LEVITON SCHNEIDER ELECTRIC SENSOR SWITCH HUBBLE AUTOMATION

- 1. SENSOR EQUIPMENT MANUFACTURERS SHALL PROVIDE FACTORY AUTHORIZED REPRESENTATIVE TO DEMONSTRATE TYPICAL INSTALLATION AND COMMISSIONING OF EQUIPMENT TO INSTALLING CONTRACTOR DURING PROJECT CONSTRUCTION.
- 2. OCCUPANCY SENSOR TIME-OFF SETTINGS SHALL BE 20 MINUTES MINIMUM AND 30 MINUTES MAXIMUM.

DEPARTMENT OF JRAL RESOURCES IOWA DEP

ETAILS

ELECTRIC

REVISION DRAWN BY: PROJECT NUMBER:

JL 15-04-88-01 CHK'D BY: DATE: JV 07.29.2015

E4.0

ONE-LINE DIAGRAM

P													GREEN VALLEY STATE PARK		
LOAD DESCRIPTION	LOAD	TY	BR AMP		CKT NO				BRK AMP		TY	LOAD	LOAD DESCRIPTION		
DECEDIA OLE	(VA)					A	В			_	N 4	(VA)	DOI ED		
RECEPTACLE	900	R		1	1	1080	1110	2	15			180	BOILER		
RECEPTACLE	720	R		1	3	0000	1440	4	20			720	RECEPTACLES		
RECEPTACLE	540	R		1	5	2690		6	30	2	M	4300	CU		
RECEPTACLE	720	R		1	7		2870						-		
RECEPTACLE	720	R	20	1	9	2870		10	30	2	M	4300	CUH		
RECEPTACLE	1080	R	20	1	11		3230						-		
RECEPTACLE	1080	R	20	1	13	1580		14	20	1	M	500	GFS		
RECEPTACLE	1080	R		1	15		1800		20	1	R	720	RECEPTACLES		
CORD REELS	720	R	20	1	17	1220		18	20	1	M	500	RCP		
WELDER		Α	50	2	19		1500	20	20	1	M	1500	FUEL PUMP		
-					21	1100		22	20	1	M	1100	EF-2		
WELDER		Α	50	2	23		1500	24	20	1	Α	1500	MICROWAVE		
-					25	1000		26	20	1	Α	1000	DISPOSAL		
GARAGE DOOR	900	M	20	1	27		2100	28	20	1	Α	1200	REFRIGERATOR		
GARAGE DOOR	900	M	20	1	29	1080		30	20	1	R	180	GF RECEPTACLE		
GARAGE DOOR	900	M	20	1	31		1080	32	20	1	R	180	GF RECEPTACLE		
WATER HEATER	4500	M	30	2	33	2750		34	20	1	L	500	LIGHTING		
-					35		3050	36	20	1	L	800	LIGHTING		
AIR COMPRESSOR		M	30	2	37	500		38	20	1	М	500	DCP		
-					39		360	40	20	1		360	LIGHTING		
SPARE			20	1	41			42	20	1			SPARE		
VOLTS-PHASE-WIRE BUS RATING MAIN BREAKER RATING MOUNTED DEMAND LIGHTING DEMAND RCPT. 10KVA @ 100%+ DEMAND MOTOR DEMAND APPLIANCES OTHER SCCR RATING TOT. DEMAND (KVA) TOT. DEMAND (AMPS) TOT. CONNECTED LOAD (KVA)	20.08 3.70 25,000 34.80 145.00	- 	KVA KVA	@ 10 @ 50 @ 10	00% 0% 00% 00%	1.66 9.36 20.08 3.70		DEN SUN LIGH REC MO	HASE HASE MAND MMAR HTING CEPT. FOR	L(C)	ONI ONI	Y PHAS NECTED NECTED	15.87		
TOT. CONNECTED AMPS * 1.25	181.2	5	AMP	S				OTH	ER						

								D 4 1		_			000000000000000000000000000000000000000
									NEL				GREEN VALLEY STATE PARK
LOAD DESCRIPTION	LOAD				СКТ							LOAD	LOAD DESCRIPTION
	(VA)		AMP	Р	NO	Α	В	NO	AMP	P		(VA)	
RECEPTACLES	900	R	20	1	1	1800		2	20	1	M	900	GARAGE DOOR
RECEPTACLES	1080	R	20	1	3		1980	4	20	1	M	900	GARAGE DOOR
CORD REELS	540	R	20	1	5	1440		6	20	1	M	900	GARAGE DOOR
RECEPTACLES	900	R	20	1	7		1800	8	20	1	M	900	GARAGE DOOR
LIGHTING	600	L	20	1	9	600		10	20	1			SPARE
LIGHTING	700	L	20	1	11		700	12	20	1			SPARE
	-	_											
VOLTS-PHASE-WIRE	120/240	<b>V-1</b> I	2HAS	E-3V	V								
BUS RATING	100A	=						TOT	AL LC	)A	DB'	Y PHASI	(KVA)
MAIN BREAKER RATING	100A												
MOUNTED	SURFAC	Œ						A PH	HASE	C	ONI	NECTED	3.84
DEMAND LIGHTING	1.30		KVA	@ 10	10%	1.30		B PH	HASE	C	NO.	NECTED	4.48
DEMAND RCPT. 10KVA @ 100%+	3.42		KVA	@ 50	1%	3.42							
DEMAND MOTOR	3.60		KVA	@ 10	10%	3.60							
DEMAND APPLIANCES			<b>KVA</b>	@ 10	10%								
OTHER			KVA	@ %				DEM	IAND	LC	DAC	)	
SCCR RATING	25,000		Α		_			SUM	<b>IMAR</b>	Y			TOTAL KVA
TOT. DEMAND (KVA)	8.32												
TOT. DEMAND (AMPS)	34.67							LIGH	ITING				1.30
		_						REC	EPT.				3.42
TOT. CONNECTED LOAD (KVA)	8.32							MOT	OR				3.60
TOT. CONNECTED LOAD (AMPS)	34.67							APP	LIAN	CE			
								OTH	ER				
TOT. CONNECTED AMPS * 1.25	43.33		AMPS	3									

	LUMINAIRE SCHEDULE												
				LAMP				FIXTURE	FIXTURE				
TYPE	MANUFACTURER	MODEL NUMBER	DESCRIPTION	DIMENSIONS	TYPE	QUANTITY	BALLAST	LOAD	VOLTS	APPROVED EQUALS			
F1	GIGA TERA	NA-65-A-09-S-UL	INDUSTRIAL LINEAR LED SURFACE MOUNT FIXTURE. INDIRECT HIGH EFFICIENCY LIGHTING. MINIMUM 6,500 LUMENS AT 5,000K CCT AND >80 CRI. ALUMINUM HOUSING WITH CURVED POLYCARBONATE COVER AND WHITE REFLECTOR. DAMP LOCATION LISTED.	47"X7"X4"	NOMINAL 5,000K CCT LEDS AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	65	120	AS APPROVED BY ENGINEER			
F2	JUNO INDY	L6-23-40-U-G2 L600HW-C-Q-WH	HYPERBOLIC SHAPE LED DOWNLIGHT. ALUMINUM HEAT SINK INCOOPORATED WITH HOUSING. DELIVERING MINIMUM 2,300 LUMENS AT MINIMUM OF 80 CRI AT 4,000K CCT. SUITABLE FOR INSTALLATION IN CEILINGS WITH THICKNESS OF UP TO 2"	4" X 6"	NOMINAL 4000°K 80 CRI LEDS AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	29	120	CREEK KR SERIES, OR AS APPROVED BY ENGINEER			
F3	CREE	ZR24-40L-40K	RECESSED LED 2X4 TROFFER - 4,000 LUMENS WITH 90 CRI.	2'X4'	CRI LEDS AS PROVIDED BY	AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	32	120	WILLIAMS LT, OR AS APPROVED BY ENGINEER			
F4	HE WILLIAMS	LLMS-4-LED*UT41/840-S-RD-ED*UT- 120/277	SINGLE UNIT LED WRAPAROUND WITH 22 GAUGE COLD ROLLED STEEL HOUSING WITH 92% REFLECTANCE WHITE POLYESTER POWDER COAT FINISH ELECTROSTATICALLY APPLIED AND BAKED AFTER FIXTURE FABRICATION. ROUNDED PROFILE EXTRUDED FROSTED ACRYLIC SNAPIN DIFFUSER. FIXTURE SUITABLE FOR CEILING OR WALL MOUNTING, WITH TWO FIXTURE END PLATES TO FIRMLY SECURE DIFFUSER ENDS. NOMINAL 4100°K WHITE LEDS WITH GREATER THAN 80 CRI DELIVERING 4,100 INITIAL LUMENS.	4' X 1'	NOMINAL 4000°K 80 CRI LEDS AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	52	120	BARTCO BSS210 SERIES, CREE LS SERIES, LITHONIA WL4 SERIES			
F5	HE WILLIAMS	75L-4-LED*PH20/840-A12125-VBY-2 EDD*PH-UNV	LED LENSED STRIP FIXTURE. 22-GAUGE DIE-FORMED C.R.S. HOUSING. ALL PARTS PAINTED -AFTER FABRICATION. ACRYLIC #12 LENS. SUSPENDED MOUNT. PROVIDE WITH (2) Y HANGERS AND (2) 2' CHAINS. COORDINATE MOUNTING LOCATION AND HEIGHT WITH OWNER. MINIMUM 2000 LUMENS AND AT LEAST 80 CRI AT 4,000K CCT.	4' X 1'	NOMINAL 4000°K 80 CRI LEDS AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	24	120	AS APPROVED BY ENGINEER			
F6	PHILIPS GARDCO	121-MRM-WT-35LA-350-NW-UNV- BLP-PCB-MHS	EXTERIOR WALL MOUNT CUT-OFF LED LUMINAIRE. DIE-CAST ALUMINUM HOUSING WITH TEMPERED GLASS LENS ASSEMBLY AND STAINLESS STEEL FASTENERS. CLEAR SPECULAR ANODIZED ALUMINUM REFLECTOR. BRONZE POLYESTER POWDER COAT FINISH. UL LISTED FOR WET LOCATION. INTEGRAL PASSIVE INFRARED MOTION SENSOR CABABLE OF DETECTION MOTION WITHIN 24 FEET. MOTION SENSOR REDUCES SYSTEM WATTAGE TO 25% OF FULL OUTPUT WHEN NO MOTION IS DETECTED FOR 5 MINUTES. INTEGRAL PHOTOCELL.	15.5" X 9.25" X 5.5"	NOMINAL 4000°K 75 CRI LEDS AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	AS PROVIDED BY MANUFACTURER	35	120	LITHONIA WSQ SERIES, LSI XPWS3 SERIES, CREE XSP, OR AS APPROVED BY ENGINEER			

- GENERAL NOTES:

  1. VERIFY COMPATIBILITY OF LIGHT FIXTURES WITH CEILING MATERIAL, ADJACENT CONSTRUCTION, AND ADJACENT FINISHES PRIOR TO SHOP DRAWINGS SUBMITTAL AND NOTIFY THE ENGINEER OF ANY CONFLICTS WITH THE PROPOSED INSTALLATION.

  2. CONTRACTOR IS RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE NECESSARY TO INSTALL AND SUPPORT THE LUMINAIRES.

  3. ADJUSTABLE INTERIOR AND EXTERIOR LIGHT FIXTURES SHALL BE TARGETED AND ADJUSTED BY THE CONTRACTOR UNDER THE OBSERVATION AND IN COMPLIANCE WITH RECOMMENDATIONS OF THE OWNER. ALL LABOR AND MATERIAL COSTS MADE NECESSARY BY THIS REQUIREMENT SHALL BE INCLUDED.

			FOLL	IDMEN:	TOCL	IEDIII B				
	EQUIPMEN' ELECTRICAL CHARACTERISTICS						CONNECT			
	MOTOR					SIZE	NEMA	FUSE		
TAG	VOLT/PHASE	HP	KW	MCA	TYPE	(AMPS)	RATING	(AMPS)	REMARKS	
EF-1	120 / 1	-	0.1	-	CP	20	1	-	Connect to lighting circuit	
EF-2, EF-2 MOD, MOD-1	120 / 1	1/2	-	-	HOA	20	1	-	HOA switch provided by MC	
B-1	120 / 1	-	-	15	CP	-	-	-	Cord provided with unit	
WH-1	240 / 1	-	4.5	-	СВ	-	-	-	-	
DCP	120 / 1	1/8	-	-	СВ	-	-	-	Time switch provided by MC installed by EC	
RCP	120 / 1	1/8	-	-	СВ	-	-	-	-	
CUH-1	240 / 1	-	4	-	INT	-	-	-	-	
SSI-1/2	240 / 1	-	-	1	-	-	-	-	Interconnected with CU-1	
CU-1	240 / 1	-	-	18	DS	30	3R	-	-	
ABBREVIATIONS:				•	•	•		•		
СВ	CIRCUIT BREAKER IN PANELBOARD									
СР	CORD AND PLU	CORD AND PLUG								
DS	NON-FUSED DISCONNECT SWITCH									
INT	INTEGRAL WIT	INTEGRAL WITH EQUIPMENT FROM FACTORY								
HOA	HAND OFF AU	HAND OFF AUTO SWITCH								



# IOWA DEPARTMENT OF NATURAL RESOURCES

STATE

ELECTRICAL SCHEDULES

GREEN

IO. BY REVISION

DRAWN BY: PROJECT NUMBER: JL 15-04-88-01 CHK'D BY: DATE:
JV 07.29.2015

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